

Atlantic States Marine Fisheries Commission

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

Summer Flounder Recreational Management in 2015



ASMFC Vision: Sustainably Managing Atlantic Coastal Fisheries

Approved February 4, 2015

1.0 Introduction

This Addendum is implemented 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). 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 the southern border of North Carolina northward to the US-Canadian border. The Commission's Summer Flounder, Scup, and Black Sea Bass Management Board (Board) approved the following motion on October 28, 2014:

- 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 regional management of the recreational summer flounder fishery for 2015.*

This Addendum establishes management of the 2015 recreational summer flounder fishery.

2.0 Overview

2.1 Statement of the Problem

The Commission's FMPs strive to provide recreational anglers with equitable access to shared fishery resources throughout the range of each recreationally 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.

To address the growing concern over equitable access to the resource through state-by-state management measures developed under conservation equivalency, the Board approved Addendum XXV in February 2014 to adopt adaptive regional management in the recreational summer flounder fishery for one year. The regions were the following: Massachusetts, Rhode Island, Connecticut-New Jersey, Delaware-Virginia, and North Carolina.

The regional management tools provided in Addendum XXV expired on December 31, 2014. This addendum allows the continuation of the regional management approach into 2015, with the ability of extending adaptive regional management into 2016.

2.2 Background

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 in the recreational fishery. The consistent coastwide measures were intended to achieve conservation goals in all state and federal waters throughout the range of the resource. However, states soon found that one set of management 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 (in 2001 via Addendum IV and again in 2003 via Addendum VIII) to allow for the use of state conservation equivalency to manage recreational harvests. From 2001-2013, the FMP allowed for, and the Commission and Council utilized, a state-by-state allocation formula based on estimates of state recreational landings in 1998 to establish individual state harvest targets. This allowed for individual states to tailor their regulations – namely, minimum size, possession, and season limits – to meet the needs and interests of their fishermen, provided the targets were not exceeded. The individual state targets, as a percentage of the total coastwide recreational harvest limit, are set forth in Table 2.

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 has been increasingly viewed as an inadequate long-term solution, given recent changes in resource status and fishery performance. Sixteen years have passed since 1998. Even if the targets were equitable a decade ago, they are now likely out of synch given the substantial changes seen in stock dynamics since the late 1990s. Since 1996, 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 state targets set by the FMP does not reflect changes in socio-economic patterns over the past 16 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 5.7 million in 2013 (Table 3). Landings by mode have also changed over the same time period, with decreases across all modes (Table 4). Lastly, the Summer Flounder Advisory Panel members for the Commission and Council have noted the continual rise in the 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 fraught with uncertainty and error, given the general difficulty of measuring recreational catch and effort especially on a state-by-state basis. Over the past 16 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 (SSB) has been less than the SSB target of 137.555 million pounds. In addition, recruitment has been below average since 2009. These two stock conditions have the potential to lower future RHLs and could present additional challenges to equitability in fishing and harvest opportunities among states.

2.3 Description of the Fishery

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.

Fishing opportunities and success in the summer flounder recreational fishery have varied throughout the management unit (Appendix A assesses the state by state performance of summer flounder fishery from 2009 through wave 4 of 2014). As mentioned previously, there was a change in management from state-by-state (2009 to 2013) to adaptive regions in 2014. Using metrics including retention rate, targeted fishing trips, possession limits, minimum size and season length, states were scored in relation to each other over the previous 5 years. Fishing opportunities differ on a state-by-state basis, and don’t appear to follow regional boundaries.

From 2009-2013 retention rates were on average highest in the states of Massachusetts, Rhode Island and Virginia, and the lowest in New York and Maryland (Tables 7A-7C). Based on preliminary data through wave 4 of 2014, similar trends have continued in 2014.

Fishing seasons for summer flounder varied significantly along the coast from 2009-2013. Over this time period, Rhode Island and the states of Delaware through North Carolina were usually open the entire time that fish were available to state anglers. Massachusetts has a short open season of 132 days, but few opportunities to fish for summer flounder locally actually exist outside of this time period. New Jersey has historically had the shortest open season relative to fish availability in its waters, followed by New York and Connecticut. In 2014, the states of Connecticut through New Jersey, all part of the same region, had a season length of 128 days.

Interest or avidity in relation to successful trips has also varied widely; for example, between 2009-2013 trips targeting summer flounder were lowest in Massachusetts (with a range of 1.4 % of all trips in 2010 to 3.4% in 2012) and highest in New Jersey and New York (never lower than 36% and 35%, respectively) yet the highest ratio of targeted trips to harvest consistently can be found in Massachusetts and Rhode Island. This trend did not change in 2014 (Tables 7A-7C).

From 2009-2013, possession limits varied across states with the most restrictive in New York (2 fish) to least restrictive in Rhode Island (8 fish). In 2014, possession limits ranged from 4 fish to 8 fish.

In comparing state size limits with their nearest neighbors from 2009-2013, states differed 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 occurring between Maryland and its neighboring states. Regional management in 2014 minimized most of the minimum size differences between neighboring states, but differences continue to create problems at the borders between regions, particularly for New Jersey and Delaware that have a 2 inch difference and a common inland body of water.

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 intended to not only produce better estimates, but to 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.

MRIP is an evolving program with ongoing improvements. Most recently, NOAA Fisheries, 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, namely, that the MRFSS catch estimation method was not correctly matched with the sampling design used to gather data, leading to potential biases 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> .

2.4 Status of the Stock

The most recent peer-reviewed benchmark assessment for summer flounder was conducted by the July 2013 Stock Assessment Workshop/Stock Assessment Review Committee

(SAW/SARC). 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 updated biological reference points established in the 2013 SAW 57 assessment. 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 $F_{MSY} = 0.309$. SSB was estimated to be 113 million pounds (51,238 mt) in 2012, about 82% of the new $SSB_{MSY} = 137.555$ million pounds (62,394 mt). The 2012 year class is estimated to be about 37 million fish, about 14% below average, but higher than the 2010 (34.6 million fish) and 2011 (19.6 million fish) year classes. NOAA Fisheries declared the summer flounder stock rebuilt in 2010, based on the 2011 assessment update.

3.0 Management Program

Summer Flounder Recreational Fisheries Management

Adaptive Regional Management:

The 2015 summer flounder recreational fishery will divide the coastwide recreational harvest limit into five regions: 1) Massachusetts 2) Rhode Island 3) Connecticut-New Jersey 4) Delaware-Virginia and 5) North Carolina.

Due to the wide geographic range of this species, the application of 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 for 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 measure is not intended to implement new state targets or set a precedent for new state targets. Under the adaptive regional approach, states would not give up their (1998-based) allocated portion of the 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 2016) to continue managing their fisheries in accordance with their allocated portion of the RHL.**

Under this adaptive regional management approach, the Technical Committee will develop proposed measures for each region that, when combined with other regions, would constrain the coastwide harvest to the RHL based on Board direction. The management measures would be similar to the 2014 regulations for each state, but allow for some flexibility to achieve consistent harvest opportunities among the regions. States within each region will be required to implement the same bag, size limits, and season length. Each state will implement a season that, when combined with the other states' seasons and the regional bag and size limit, constrained the region to the harvest target. Once the Technical Committee developed proposed measures for each region, the Board would review and

approve a set of regional regulations that, when combined, would constrain the coastwide harvest to the RHL.

Table 1. 2014 Preliminary State and Regional Harvest through Wave 5

STATE	2014 Size Limit	2014 Possession Limit	2014 Season (in number of days)	2014 State by State Harvest through Wave 5 (in fish)	Regional Harvest through Wave 5 (in fish)	2014 Projected Regional Harvest (in fish)	2014 Harvest relative to Projected Regional Harvest* (percentage)
MASSACHUSETTS	16"	5	132	113,993	113,993	32,936	346.1%
RHODE ISLAND	18"	8	245	181,601	181,601	126,724	143.3%
CONNECTICUT	18"	5	128	119,063			
NEW YORK	18"	5	128	515,830	1,786,244	1,793,823	99.6%
NEW JERSEY	18"	5	128	1,151,351			
DELAWARE	16"	4	365	86,347			
MARYLAND	16"	4	365	70,806	295,395	312,110	94.6%
VIRGINIA	16"	4	365	138,242			
NORTH CAROLINA	15"	6	365	45,962	45,962	45,936	100.1%

* Projected Regional Harvest estimates were developed with consideration of size limit, bag limit, and season length in 2013, each state's fishery performance in 2013, and feasible management measures needed to constrain coastwide harvest to the 2014 RHL.

Regional Management Approach:

Under this management program the coastwide recreational harvest limit will be divided into five regions: 1) Massachusetts 2) Rhode Island 3) Connecticut-New Jersey 4) Delaware-Virginia and 5) North Carolina. This is the same regional approach that was utilized in 2014.

3.1.1 Timeframe for Summer Flounder Measures

One year with the option to extend for one year

The measures approved in section 3.0 of this addendum will expire at the end of 2015 (December 31, 2015). The Board can take action, through a Board vote, to extend the addendum for one year, expiring at the end of 2016 (December 31, 2016). After 2016, measures would revert back to the FMP status quo coastwide measures/conservation equivalency approach.

4.0 Compliance:

States will implement measures before the start of their summer flounder fishery. States will go through their administrative procedure to implement regional Summer Flounder recreational measures for 2015. State measures will be made available to the public as soon as they are finalized. The Technical committee recommends that monitoring of harvest and catch should be conducted for the duration the fishery is open in a given year.

Tables

Table 2. State summer flounder harvest in 1998 and the proportion of harvest conservation equivalency state by state harvest targets are 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 3. Angler Participation on the Atlantic Coast with percent change from 1998-2013

Angler Participation coastwide from 1998-2013				
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%
2013	5,170,097	625,465	5,795,562	26.41%

Source: Personal Communication from National Marine Fisheries Service, Fisheries Statistics Division, 11/26/2014

Table 4. The number of summer flounder landed from Maine through North Carolina by mode, 1981-2013.

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
2013	132,684	208,207	2,116,398
% of Total, 1981-2013	9%	14%	78%
% of Total, 2008-2013	4%	9%	87%
Source: Summer Flounder AP Information Document. Mid-Atlantic Fishery Management Council. August 2014.			

Table 5. 2013 Summer Flounder recreational management measures

State	Minimum Size (inches)	Possession Limit	Open Season
Massachusetts	16	5 fish	May 22-September 30
Rhode Island	18	8 fish	May 1-December 31
Connecticut	17.5	5 fish	May 15- October
CT Shore Program (45 designed shore sites)	16		
New York	19	4 fish	May 1- September 29
New Jersey	17.5	5 fish	May 18- September 16
Delaware	17	4 fish	January 1- December 31
Maryland	16	4 fish	March 28- December 31
PRFC	16	4 fish	January 1- December 31
Virginia	16	4 fish	January 1- December 31
North Carolina	15	6 fish	January 1- December 31

Table 6. 2014 Summer Flounder recreational management measures

State	Minimum Size (inches)	Possession Limit	Open Season
Massachusetts	16	5 fish	May 22-September 30
Rhode Island	18	8 fish	May 1-December 31
Connecticut	18	5 fish	May 17- September 21
CT Shore Program (45 designed shore sites)	16		
New York	18	5 fish	May 17- September 21
New Jersey	18	5 fish	May 23- September 27
NJ pilot shore program 1 site	16	2 fish	Tentatively May 23-September 27
Delaware	16	4 fish	January 1- December 31
Maryland	16	4 fish	January 1- December 31
PRFC	16	4 fish	January 1- December 31
Virginia	16	4 fish	January 1- December 31
North Carolina	15	6 fish	January 1- December 31

Appendix

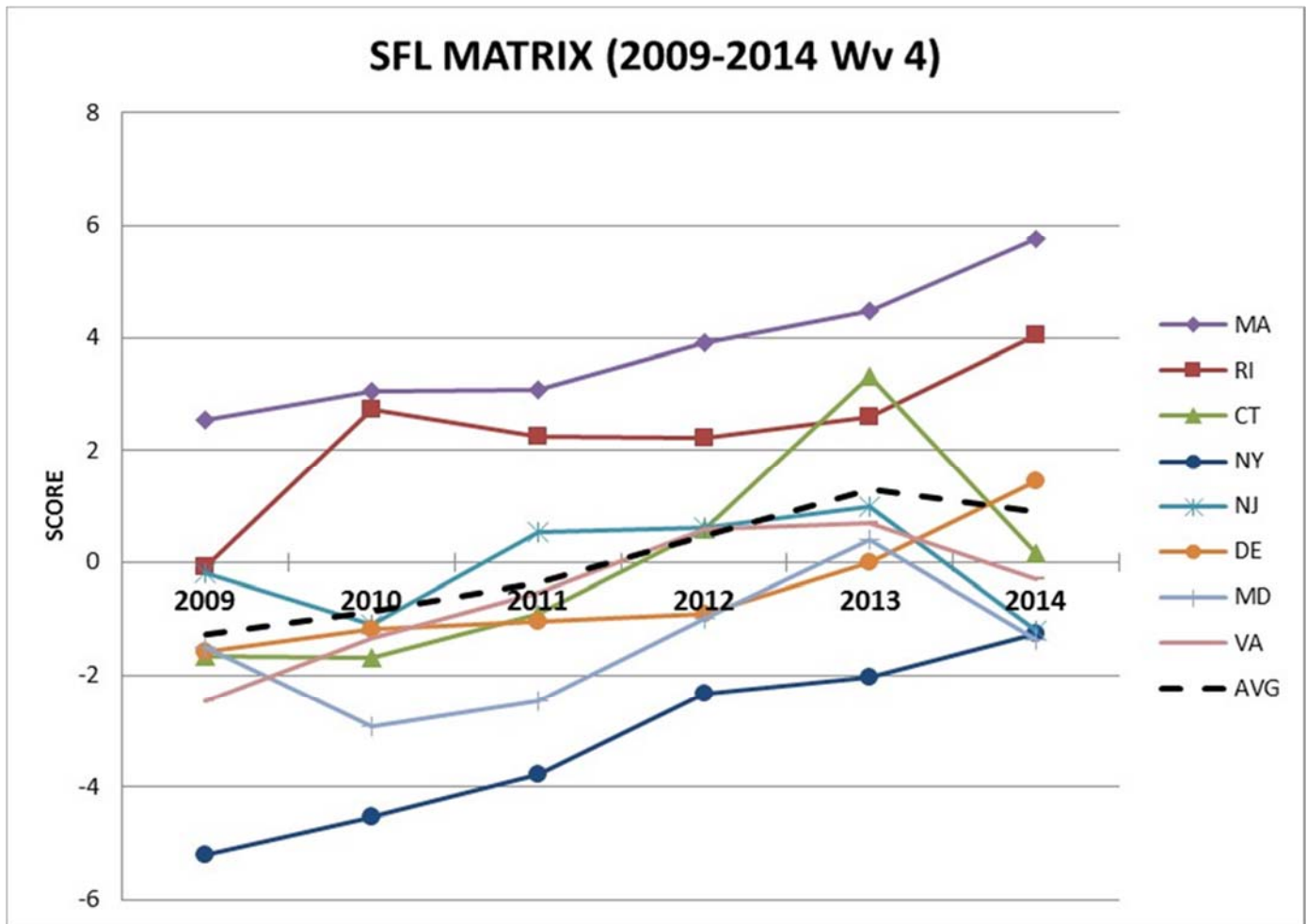


Figure 1. Summer Flounder Recreational Performance by State 2009-2014 Wave 4*#

*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.

#Harvest estimates through wave 4 for 2014 are preliminary and are subject to change as subsequent wave estimates become available.

Table 7A. Recreational Summer Flounder Fishery Performance 2009-2010

YEAR	2009	2009	2009	2009	2009	2009	2009	2009	2010	2010	2010	2010	2010	2010	2010	2010
STATE	MA	RI	CT	NY	NJ	DE	MD	VA	MA	RI	CT	NY	NJ	DE	MD	VA
METRIC	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
RETENTION RATE	34.3%	15.8%	9.5%	5.1%	7.3%	8.3%	7.3%	7.4%	17.4%	34.0%	8.6%	4.8%	5.0%	8.0%	2.0%	9.7%
INTERCEPTS HARVEST : CATCH	0.47	0.32	0.27	0.15	0.29	0.21	0.27	0.16	0.55	0.31	0.24	0.18	0.19	0.22	0.07	0.28
BAG LIMIT	5	6	3	2	6	4	3	5	5	6	3	2	6	4	3	4
NO. FISH HARVEST: NO. TARGETED TRIPS	0.54	0.49	0.26	0.24	0.44	0.28	0.25	0.33	0.95	0.83	0.25	0.27	0.27	0.25	0.09	0.41
% CORE SEASON (1% of total harvest in wave 1996-1998)	31.7%	100.0%	35.9%	41.3%	57.1%	100.0%	62.0%	100.0%	77.7%	100.0%	56.0%	62.5%	54.9%	100.0%	89.4%	100.0%
% of ALL S/W TRIPS TARGETING SFL	2.7%	14.9%	12.1%	26.0%	35.2%	33.7%	8.8%	28.8%	1.4%	11.5%	9.2%	28.5%	35.0%	26.4%	9.5%	24.4%
NEAREST NEIGHBOR SIZE LIMIT	-2.5	2.0	-1.5	2.3	-1.8	0.5	-0.8	2.5	-1.0	0.5	-0.75	2.25	-1.75	0	0.5	1.5

Table 7B. Recreational Summer Flounder Fishery Performance 2011-2012

YEAR	2011	2011	2011	2011	2011	2011	2011	2011	2012	2012	2012	2012	2012	2012	2012	2012
STATE	MA	RI	CT	NY	NJ	DE	MD	VA	MA	RI	CT	NY	NJ	DE	MD	VA
METRIC	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
RETENTION RATE	24.2%	18.2%	12.0%	4.9%	8.3%	9.8%	3.1%	13.8%	23.2%	21.3%	16.9%	9.2%	13.9%	15.2%	9.6%	23.3%
INTERCEPTS HARVEST : CATCH	0.40	0.43	0.24	0.18	0.26	0.20	0.08	0.29	0.50	0.43	0.28	0.22	0.35	0.23	0.20	0.41
BAG LIMIT	5	7	3	3	8	4	3	4	5	8	5	4	5	4	3	4
NO. FISH HARVEST: NO. TARGETED TRIPS	0.81	0.78	0.39	0.27	0.39	0.28	0.10	0.49	0.79	0.69	0.27	0.43	0.57	0.27	0.18	0.43
% CORE SEASON (1% of total harvest in wave 1996-1998)	95.0%	100.0%	61.4%	83.2%	77.2%	100.0%	93.5%	100.0%	95.0%	100.0%	92.4%	83.2%	79.9%	100.0%	100.0%	100.0%
% of ALL S/W TRIPS TARGETING SFL	2.6%	18.6%	9.3%	33.5%	36.4%	25.8%	5.5%	22.4%	3.4%	13.9%	17.2%	31.7%	39.3%	19.2%	5.7%	23.7%
NEAREST NEIGHBOR SIZE LIMIT	-1.0	0.5	-1	2.25	-1.25	0	0.25	1	-2.0	1.25	-1	1.75	-1.25	0.75	-0.25	0.5

Table 7C. Recreational Summer Flounder Fishery Performance 2013-2014 Wv4

YEAR	2013	2013	2013	2013	2013	2013	2013	2013	2014 Wv4	2014 Wv4	2014 Wv4	2014 Wv4	2014 Wv4	2014 Wv4	2014 Wv4	2014 Wv4
STATE	MA	RI	CT	NY	NJ	DE	MD	VA	MA	RI	CT	NY	NJ	DE	MD	VA
METRIC	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
RETENTION RATE	34.4%	19.6%	23.8%	9.8%	16.0%	18.8%	15.0%	26.8%	25.1%	30.4%	15.8%	10.9%	11.0%	25.3%	6.3%	17.4%
INTERCEPTS HARVEST : CATCH	0.63	0.51	0.54	0.29	0.50	0.31	0.27	0.35	0.63	0.58	0.42	0.32	0.37	0.35	0.15	0.27
BAG LIMIT	5	8	5	4	5	4	4	4	5	8	5	5	5	4	4	4
NO. FISH HARVEST: NO. TARGETED TRIPS	0.52	0.77	0.98	0.41	0.79	0.35	0.32	0.44	1.37	1.04	0.52	0.42	0.62	0.50	0.13	0.40
% CORE SEASON (1% of total harvest in wave 1996-1998)	95.0%	100.0%	92.4%	82.6%	70.7%	100.0%	100.0%	100.0%	95.0%	100.0%	69.6%	69.6%	69.6%	100.0%	100.0%	100.0%
% of ALL S/W TRIPS TARGETING SFL	2.1%	14.0%	24.4%	35.1%	42.9%	20.5%	5.9%	19.6%	3.3%	22.7%	25.6%	48.2%	47.7%	29.2%	9.7%	22.8%
NEAREST NEIGHBOR SIZE LIMIT	-2	1.25	-1	1.5	-0.5	0.25	-0.5	0.5	-2.0	1.0	0.0	0.0	1.0	-1.0	0.0	0.5