



Mid-Atlantic Fishery Management Council
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Richard B. Robins, Jr., Chairman | Lee G. Anderson, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

DATE: November 27, 2013

TO: Council

FROM: Kiley Dancy, Staff

SUBJECT: Scup Recreational Measures for 2014

The following materials are enclosed for Council consideration of the above subject:

- 1) Advisory panel meeting summary
- 2) Monitoring Committee meeting summary and 2013 waves 1-4 data update
- 3) Scup staff memo dated November 12, 2013



Summer Flounder, Scup, and Black Sea Bass Advisory Panel Meeting Summary November 25, 2013

The Mid-Atlantic Fishery Management Council's (Council's) Summer Flounder, Scup, and Black Sea Bass Advisory Panel met jointly with the Atlantic States Marine Fisheries Commission's (Commission's) Summer Flounder, Scup, and Black Sea Bass Advisory Panels on November 25, 2013 to discuss 2014 recreational management measures.

Council Advisory Panel members present: James Fletcher (NC), Skip Feller* (VA), Willy Hatch (MA), Denny Dobbins (VA), Steve Witthuhn (NY), Adam Nowalsky (NJ), Rick Bellavance* (RI)

Commission Scup Advisory Panel members present: James Tietje (MA), Paul Forsberg (NY), Frank Blount (RI), Rick Bellavance* (RI), Mike Plaia (CT), Joseph Huckemeyer (MA), James Lovgren (NJ)

Other Commission Advisory Panel members present: Robert Busby (NY), Bill Shillingford (NJ), Jack Conway (CT), Paul Risi (NY), Mike Fedosh (NJ), Skip Feller* (VA), Marc Hoffman (NY), Roman Jesien (MD), Victor Bunting (MD)

Others present: Kiley Dancy (Council staff), Kirby Rootes-Murdy (ASMFC staff), Kareem Alalkey, Ray Stinsman, Emerson Hasbrouck (NY), Cary O'Kane

*Serve on both Council and Commission Advisory Panels.

Scup 2014 Measures

The advisors strongly believe that measures should be liberalized for scup to allow the recreational fishery the opportunity to achieve the target.

The suggestion of a cumulative length limit was again brought up for scup, but most advisors agreed that this would be far too complicated for the scup fishery, especially given high numbers of participants and high numbers of scup landed in the party/charter fishery.

In terms of the Monitoring Committee's recommendations for Federal measures, the advisors agreed that the possession limit should be higher than 30 fish. The advisors suggested a possession limit of 40 fish or more, but at a 10-inch size limit instead of the 9-inch limit recommended by the Monitoring Committee. Generally, in Federal waters, a high possession limit is more important than a smaller size limit.

The advisors commented that the fishery should not be closed during wave 1 (January and February). The amount of harvest in wave 1 is small compared to the rest of the year, and primarily consists of bycatch during directed trips for cod and other species. This harvest occurs primarily in the party/charter sector, for which VTR data is available to provide estimates of scup harvest during this wave.

If the Commission chooses to continue the regional approach in state waters, the advisors recommend liberalizing measures in state waters. Staff should explore what levels of liberalization are available and provide this information to the Council and Board.

General Comments

As noted in the September 2013 Fishery Performance Reports, advisors continue to be concerned that the effort estimation methodology used by MRIP has not accurately captured a reduction in effort in New York and New Jersey due to Superstorm Sandy.



**Summer Flounder, Scup, and Black Sea Bass Monitoring Committee
Meeting Summary and Data Update
November 22, 2013**

Scup 2014 Monitoring Committee Recommendations

Attendees: Paul Caruso (MA-DMF), Jason McNamee (RI-DFW), Peter Clarke (NJ-F&W), Greg Wojcik (CT-DEEP), Sally Roman (VMRC), Rich Wong (DNREC), Steve Doctor (MD-DNR), Moira Kelly (NMFS NERO), John Maniscalco (NY-DEC), Tom Wadsworth (NC-DMF), Kiley Dancy (Council Staff), Kirby Rootes-Murdy (ASMFC), Toni Kerns (ASMFC), Mike Luisi (MD-DNR; MAFMC Demersal Committee Chair)

The Monitoring Committee met on Friday, November 22, 2013 in Linthicum, MD to recommend recreational management measures for summer flounder, scup, and black sea bass in 2014. Prior to the meeting, preliminary Marine Recreational Information Program (MRIP) data for 2013 waves 3 and 4 (May through August) were undergoing revisions by NMFS and were unavailable for analysis. Revised data were posted shortly after the Monitoring Committee meeting began, and were reviewed by the Committee but were not able to be analyzed in-depth. Recommendations below are based on a review of available information, including projected landings through 2013.

The Committee supports the Commission continuing the regional approach for setting measures in state waters, rather than a coastwide measure for both state and federal waters. This approach provides flexibility for the states to accommodate the needs of the modes and areas for their individual states.

The Committee recommends Federal measures including a 9-inch TL size limit, a 30 fish possession limit, and an open season of March 1-December 31. Given that only a small fraction of the scup harvest occurs in Federal waters, a 30 fish possession limit (as opposed to the staff-recommended 20 fish possession limit) is not likely to significantly increase the likelihood of exceeding the harvest limit. A 9-inch size limit is more consistent with regulations in the southern states which have more significant fisheries in Federal waters, New Jersey in particular. The fishery should not be open in wave 1 (January 1-February 28) without adequate recreational data sampling in place to produce comparable MRIP estimates.

In terms of implementing any changes to early parts of the 2014 fishing season in Federal waters, the 2014 final rule for recreational fishing measures is not likely to publish until June 2014. This means that the 2013 regulations in Federal waters will roll forward into 2014 until replaced by the final rule. Therefore, any changes to the first half of the 2014 fishing season would not occur until the first half of the 2015 fishing year.

The Committee concurs with the language in the staff memos regarding concern with high possession limits in recreational fisheries.

The Committee also wishes to emphasize that the assessment of risk for the different management configurations for each of the species is based on a preliminary review of 2013 data, which was not available until the day of the meeting, as well as a more thorough review of more historical datasets including 2011 and 2012. The Council and Board may wish to consider this significant data gap when developing their recommendations.

Scup 2013 Data Update

As mentioned previously, MRIP data for waves 1-4 (May through August) were undergoing revision prior to the Monitoring Committee meeting and were not included in the staff memo dated November 12, 2013. Tables 1-4 below summarize the revised data, which was posted during the Monitoring Committee meeting on November 22, 2013.

Scup landings through the end of 2013 are projected at 5.27 million lb (Table 2), below the 2013 recreational harvest limit (RHL) of 7.55 million lb. Based on the 2014 recreational harvest limit of 7.03 million lb, a coastwide reduction would not be needed in 2014.

Table 1. Scup recreational catch and landings for waves 1-4, Maine through North Carolina, 2013.

Year	Catch ('000 fish)	Landings ('000 fish)	Landings ('000 lb)	% Released	Mean Weight (lb)
2013	6,144	3,687	3,670	40	1.00

Table 2. Projected scup recreational catch and landings for 2013.^a

Year	Catch ('000 fish)	Landings ('000 fish)	Landings ('000 lb)	Recreational Harvest Limit ('000 lb)
2013	8,514	5,174	5,274	7,550

^a Projected using proportion from 2012 MRIP data and 2013 MRIP wave 1-4 data (Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, November 26, 2013).

Table 3. Scup recreational landings ('000 fish) by state, waves 1-4, 2004-2013.

State	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
ME	-	-	-	-	-	-	-	-	-	-
NH	-	-	-	-	-	-	-	-	-	-
MA	2,787	598	374	1,718	598	988	774	661	1,545	2,025
RI	661	212	359	167	428	76	276	195	201	643
CT	98	169	266	397	280	252	670	631	544	349
NY	1,163	325	952	592	790	1,127	1,585	280	420	668
NJ	31	4	219	26	14	28	483	2	83	0
DE	0	<1	<1	<1	1	<1	0	<1	0	0
MD	0	0	0	<1	<1	0	0	0	0	0
VA	0	0	0	<1	4	<1	5	6	0	1
NC	1	2	<1	0	0	0	1	<1	<1	<1
TOTAL	4,740	1,311	2,170	2,901	2,115	2,471	3,795	1,776	2,795	3,687

Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, November 26, 2013.

Table 4. Projected recreational scup landings (in number of fish) relative to Commission targets, for 2013, by state.

State	2013 Target	2013 Landings ^a	Percent Overage (%)
MA	6,781,019 ^b	2,079,542	0%
RI		1,590,752	
CT		557,448	
NY		941,773	
NJ	c	250 ^d	N/A
DE	c	0	N/A
MD	c	0	N/A
VA	c	2,524	N/A
NC	c	1,625	N/A
Total		5,174,553	

^a Projected using proportion from 2012 MRIP data and 2013 MRIP wave 1-4 data (Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, November 26, 2013).

^b States of MA, RI, CT, and NY formed a multi-state region and pooled landings, targets, and implemented similar regulations.

^c State does not have specific target.

^d New Jersey projection should be reevaluated once wave 5 becomes available. Dominant wave shifts between 4 and 5 annually; therefore, projections tend to be extremely unstable. This issue is further discussed in the scup staff memo dated November 12, 2013.



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MEMORANDUM

Date: November 12, 2013
To: Chris Moore
From: Kiley Dancy, Jessica Coakley, and José Montañez , Staff
Subject: Scup Recreational Management Measures in 2014

In October 2013, the Council and the Atlantic States Marine Fisheries Commission's (Commission's) Summer Flounder, Scup, and Black Sea Bass Board (Board) reviewed previously implemented multi-year commercial quotas and recreational harvest limits for scup for the 2014 and 2015 fishing years. These multi-year specifications were recommended by the Council and Board in 2012. At the October 2013 meeting, the Council and Board considered the advice of the Scientific and Statistical Committee (SSC) and Monitoring Committee, and recommended no changes to these specifications.

The final rule implementing the 2014 commercial quotas and recreational harvest limits published on December 31, 2012, and includes an adjusted 2014 recreational harvest limit for scup of 7.03 million lbs. Commercial quotas and recreational harvest limits for 2015 will be implemented with the proposed rule for 2015, which has not yet filed. However, we do not expect the NMFS proposed rule will modify these harvest limits given the Council and Commission recommendations are consistent with the recommendations of the SSC and the Monitoring Committee, and 2013 recreational landings are substantially lower than the 2013 recreational harvest limit.

The Monitoring Committee must recommend recreational management measures for 2014 that will constrain landings to the recreational harvest limit. The following is a review of recreational catch and landings data for the scup fishery to help in the Monitoring Committee's deliberations.

Recreational Catch and Landings

Recreational catch of scup has fluctuated since 1981, from a peak in 1986 of 30.87 million fish to a time series low of 2.67 million fish in 1998, the lowest value in the times series (Table 1). Recreational landings were estimated to be 4.17 million lb in 2012. Scup landings in number of fish, by state, indicate that Massachusetts landed the greatest number of scup, followed by Connecticut, New York, and Rhode Island (Table 2).

The 2013 MRIP data are incomplete and preliminary. Typically, the first four waves of catch and landings data for the current year become available in mid-October. The Monitoring Committee does an early review of the MRIP data because the Council and Commission agreed that recommendations would have to be made late in the current year (i.e., 2013) to give the states enough time to enact

changes in their regulations for the upcoming year (i.e., 2014). However, estimates for 2013 waves 3 and 4 (May-August) are undergoing significant revisions at the time of this writing and are currently unavailable for analysis. Catch and landings estimates for 2013 waves 1-4 (January through August) will be provided when they become available.

In the past, preliminary wave 1-4 data for the current year has been used to project catch and landings for the entire year, by assuming the same proportion of catch and landings by wave in the previous year. Because 2013 preliminary estimates are expected to change, staff did not rely on this data to make projections when developing staff recommendations for 2014. Instead, recommendations were developed using data from the most recent complete year (2012), as the baseline.

Past Harvest Limits and Management Measures

Recreational harvest limits have varied since the FMP was first implemented, from a low of 1.24 million lb in 1999 and 2000, to a high of 8.45 million lb in 2012 (Table 3). In 2013, the Council adopted Federal management measures that included a 30 fish possession limit, a 10 inch TL size limit, and an open season from January 1 through December 31. Since 2011, the Commission has adopted a regional approach for regulations in state waters, resulting in a relatively complex set of regulations for the states from Massachusetts to New York (Table 4).

Accountability Measures

The proposed rule for the Council's Omnibus Recreational Accountability Measures Amendment filed on September 18, 2013. Several changes to the Council's system of accountability measures are proposed. The following would apply if the Council-preferred alternatives are implemented:

1. The NMFS Regional Administrator (RA) would no longer have in-season closure authority for the scup recreational fishery.
2. The determination of whether a recreational overage has occurred would be made by comparing the 3-year moving average of the lower bound of the confidence interval of the recreational catch estimate (rather than the point estimate, as is currently used) to the 3-year moving average of the recreational ACL. The 3-year moving average will continue to be phased in over a 3-year period, beginning with 2012. NMFS has identified some concerns with the use of the lower bound of the confidence interval and requested comments on this aspect of the proposed rule.
3. In the event of a recreational overage, accountability measures would no longer include a pound-for-pound payback of the overage amount in a subsequent fishing year. Instead, paybacks would occur only if: a) the ACL is exceeded for stocks that are overfished, under a rebuilding plan, or with unknown stock status; or b) biomass is below the target, but above the threshold ($1/2 < B/B_{MSY} < 1$), and the acceptable biological catch (ABC) is exceeded.
4. If a payback is needed, the amount will be scaled relative to biomass (resulting in paybacks that are smaller for stocks where biomass is closer to the target).

Methodology

The Monitoring Committee must consider and recommend measures that will ensure the recreational harvest limit of 7.03 million lb will not be exceeded in 2014. As mentioned previously, data for 2013 waves 1-4 are currently unavailable for use in projecting 2013 catch and landings. The performance of

the recreational scup fishery in 2012 can be reviewed relative to 2012 measures, and compared to the 2014 harvest limit to derive measures that are likely to constrain 2014 landings to the harvest limit. Recreational landings of scup in 2012 were 4.17 million lb, under the Federal and state management measures described in Tables 3 and 4. Using 2012 as the baseline, landings in 2014 would not need to be reduced to achieve the 2014 harvest limit. The 2012 landings (Table 5) were 41% below the 2014 harvest limit of 7.03 million lb. The distribution of 2012 landings by length is given in Figure 1. The recreational fishery has harvested less than the recreational harvest limit since 2011, when overall catch limits were significantly increased.

The possession limit, size limit, or season could be modified for scup to achieve the desired harvest level in 2014. Table 6 provides the distribution of landings by wave from 1996-2000, when identical state and Federal waters measures (coastwide) were in place. Given that measures were liberalized in most states and in Federal waters between 2012 and 2013 (Tables 3 and 4), landings data for 2013 should be examined when it becomes available. Based on a review of preliminary recreational data and the slight downward trend in stock biomass in recent years as indicated by the 2012 stock assessment update (Terceiro 2012), staff do not expect that the availability of scup to the recreational fishery will substantially increase.

The impacts of changes in recent scup management measures are difficult to analyze, given the complex and variable set of regulations implemented in state waters for the past few years. It is apparent that the state management measures in place for Massachusetts to North Carolina in 2007-2010 in conjunction with Federal measures did not constrain landings to the harvest limits, and resulted in substantial overages (Table 7). An examination of scup landings (in weight) by area indicates that in 2012, less than 1 percent of the scup landings occurred in the EEZ (> 3 miles); although the data by area is self-reported from intercepts and has associated caveats. Despite those caveats, this suggests the majority of scup landings are occurring in state waters, specifically Massachusetts through New York.

Fishing Trips and Year Class Effects

Predicting the number of trips that might be taken in 2014 is complicated (Table 7). Changes in fishing site characteristics (travel costs, catch rates, available species, water quality, etc.), fishery management policies (possession limits, size restrictions, closed seasons), and angler characteristics (age, gender, race, income, etc.) affect the demand for angler fishing trips. This makes evaluation of changes in angler behavior difficult and complex. Changes in angler behavior may result in a breakdown in the assumptions associated with specific sets of regulations and their anticipated results. Also, year-class effects in terms of fish availability can influence the expected impacts of management measures and should be considered.

2014 Staff Recommendation

Until 2002, the scup recreational fishery was managed with coastwide measures as dictated by the FMP, which included a common minimum fish size, possession limit, and an open season that were implemented in both state and Federal waters. In 2003, the Commission developed an addendum which created regional harvest limits for state waters and allocated 97 percent of the coastwide limit to the states of Massachusetts to New York. State waters measures have grown increasingly complex, with variable possession limits and minimum sizes by fishing mode (i.e., party/charter versus private angler) and by season. In 2014, staff recommend setting coastwide measures, to be implemented in both state

and Federal waters, in order to reduce complexity in the regulations, increase compliance by making measures consistent across the management unit, and improve the ability to analyze the impacts of management measures.

Staff recommend a coastwide minimum size limit of 9 inches, a decrease from the current 10 inches in place in Federal waters and in most states in the Northern region (Tables 3 and 4). In 2012, approximately 9 million scup were caught, with a release rate of approximately 58% (Table 1). Given that the stock size for scup is projected to decrease slightly in 2014 and 2015, staff expect no major changes in availability. Although a decrease in the minimum size would be expected to increase landings, staff do not expect that landings would increase to an extent that the harvest limit would be approached, if the minimum size reduction is taken in conjunction with the staff recommended decrease in the possession limit described below.

Staff remain concerned about the use of high possession limits in recreational fisheries given large increases in the average size of landed scup in recent years (Table 1). The current Federal waters 30 fish per-person per-day possession limit borders on commercial quantities, and negates the effectiveness of the possession limit as a management tool. It also contributes to high variance in the catch estimates and the potential for relatively unconstrained fishing effort under high fish availability conditions. The mean weight of landed scup has increased significantly in recent years, from 0.75 lb in 2000 to 1.14 lb in 2012 (Table 1). Given that the recreational fishery is managed with weight-based harvest limits, the implications of a 30-fish possession limit when the mean weight is over 1 lb are substantially different than the same possession limit during earlier periods where the average scup landed were smaller. Catch per angler trip data from 2011 indicate that reducing the possession limit to 20 fish, from current possession limits as high as 45 fish in northern states and 50 fish in southern states, could balance the expected increase in landings from a decrease to a 9 inch size limit (Table 8).

Based on the above information, staff recommend coastwide measures for 2014 that include a 9.0 inch TL minimum fish size, 20 fish possession limit, and open season from January 1 to December 31 in 2014. These coastwide measures would need to be implemented in both state and Federal waters.

Table 1. Scup recreational catch and landings by year, 1981-2013. The number of fish released is presented as a proportion of the total catch (% Rel).

Year	Catch^a (‘000 fish)	Landings^a (‘000 fish)	Landings^a (‘000 lb)	% Released	Mean weight (lb)
1981	10,376	9,084	5,812	12%	0.64
1982	7,181	6,454	5,205	10%	0.81
1983	10,155	8,837	6,252	13%	0.71
1984	7,775	6,057	2,416	22%	0.40
1985	13,861	10,810	6,093	22%	0.56
1986	30,872	24,823	11,605	20%	0.47
1987	12,377	9,916	6,197	20%	0.62
1988	7,539	6,062	4,267	20%	0.70
1989	11,394	9,176	5,557	19%	0.61
1990	10,172	8,043	4,140	21%	0.51
1991	16,852	13,279	8,087	21%	0.61
1992	10,077	7,764	4,412	23%	0.57
1993	7,076	5,663	3,197	20%	0.56
1994	5,650	4,270	2,628	24%	0.62
1995	3,767	2,419	1,344	36%	0.56
1996	4,676	2,972	2,156	36%	0.73
1997	3,070	1,916	1,198	38%	0.63
1998	2,670	1,211	875	55%	0.72
1999	4,636	3,251	1,886	30%	0.58
2000	11,284	7,244	5,443	36%	0.75
2001	9,925	5,099	4,262	49%	0.84
2002	7,580	3,647	3,624	52%	0.99
2003	14,661	9,452	8,484	36%	0.90
2004	13,426	7,154	7,227	47%	1.01
2005	7,038	2,589	2,678	63%	1.03
2006	9,615	3,434	3,696	64%	1.08
2007	10,051	4,748	4,593	53%	0.97
2008	10,706	3,487	3,763	67%	1.08
2009	8,704	3,134	3,221	64%	1.03
2010	11,147	5,148	5,980	54%	1.16
2011	6,473	3,056	3,663	53%	1.20
2012	8,829	3,668	4,166	58%	1.14
2013 ^b	NA	NA	NA	NA	NA

^a For 1981-2003 data are MRFSS, 2004-2013 are MRIP. ^b NA = Not available.

Table 2. Scup recreational landings (number '000) by state, waves 1-6, 2003-2012.

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
ME	-	-	-	-	-	-	-	-	-	-
NH	-	-	-	-	-	-	-	-	-	-
MA	1,624	3,313	657	425	1,770	762	1,069	925	785	1,587
RI	1,027	817	431	470	353	633	140	398	568	498
CT	1,529	1,072	508	532	925	549	289	1,088	933	868
NY	5,112	1,877	859	1,678	1,596	1,451	1,460	1,990	715	592
NJ	150	60	119	327	99	87	175	740	45	120
DE	1	<1	4	<1	2	1	<1	0	<1	<1
MD	<1	1	2	<1	<1	<1	<1	<1	<1	0
VA	8	11	9	0	<1	4	<1	5	10	1
NC	1	2	2	<1	<1	0	0	2	<1	2

Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 31, 2013. 2003 data are based on MRFSS, 2004-2012 are MRIP.

Table 3. Summary of Federal management measures for the scup recreational fishery, 1997-2015.

Measure	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Harvest Limit (m lb)	1.95	1.55	1.24	1.24	1.76	2.71	4.01	3.99	3.96	3.99
Landings (m lb)	1.20	0.88	1.89	5.44	4.26	3.62	8.48	4.24	2.54	2.95
Possession Limit	-	-	-	-	50	20	50	50	50	50
Size Limit (TL in)	7	7	7	-	9	10	10	10	10	10
Open Season	1/1 - 12/31	1/1 -12/31	1/1 - 12/31	1/1 -12/31	8/15 - 10/31	7/1 - 10/2	1/1-2/28 and 7/1-11/30	1/1-2/28 and 9/7-11/30	1/1-2/28 and 9/18-11/30	1/1-2/28 and 9/18-11/30
Measure	2007	2008	2009	2010	2011	2012	2013	2014	2015	
Harvest Limit (m lb)	2.74	1.83	2.59	3.01	5.74	8.45	7.55	7.03	6.60 ^a	
Landings (m lb)	3.65	4.04	2.94	5.74	3.66	4.17	-	-	-	
Possession Limit	50	15	15	10	10	20	30	-	-	
Size Limit (TL in)	10	10.5	10.5	10.5	10.5	10.5	10	-	-	
Open Season	1/1-2/28 and 9/18-11/30	1/1-2/28 and 9/18-11/30	1/1-2/28 and 10/1-10/31	1/1-2/28 and 10/1-10/31	6/6 - 9/26	1/1-12/31	1/1-12/31	-	-	

^a Council-preferred; pending implementation by NMFS.

Table 4. Scup recreational management measures by state, 2012 and 2013.
a) 2012 measures by state.

State	Minimum Size (inches)	Possession Limit	Open Season
Massachusetts (party/charter)	11	20 fish from May 1-10 and June 25-Dec 31; 45 fish from May 11-June 24	May 1- December 31
Massachusetts (private angler)	10.5	20 fish; private vessels with 6 or more persons aboard are prohibited from possessing more than 100 scup per day	May 1- December 31
Rhode Island (party/charter)	11	20 fish from May 1-Aug 31 and Nov 1-Dec 31; 40 fish from Sept 1-Oct 31	May 1- December 31
Rhode Island (private angler)	10.5	20 fish	May 1- December 31
Connecticut (party/charter)	11	20 fish from May 1-Aug 31 and Nov 1-Dec 31; 40 fish from Sept 1-Oct 31	May 1- December 31
Connecticut (private angler)	10.5; and 9 for shore mode at 44 designated sites	20 fish	May 1- December 31
New York (party/charter)	11	20 fish from May 1-Aug 31 and Nov 1-Dec 31; 40 fish from Sept 1-Oct 31	May 1- December 31
New York (private angler)	10.5	20 fish	May 1- December 31
New Jersey	9	50 fish	Jan 1-Feb 28 and July 1 – December 31
Delaware	8	50 fish	All Year
Maryland	8	50 fish	All Year
Virginia	8	50 fish	All Year
North Carolina	8	50 fish	All Year

b) 2013 measures by state.

State	Minimum Size (inches)	Possession Limit	Open Season
Massachusetts (party/charter)	10	45 fish from May 1 to June 30; 30 fish from July 1 to December 31	July 1-December 31
Massachusetts (private angler)	10	30 fish; private vessels with six or more persons aboard are prohibited from possessing more than 150 scup per day	May 1-December 31
Rhode Island (party/charter)	10	30 fish May 1 to August 31 and Nov 1 to December 31; 45 fish September 1 to October 31	May 1-December 31
Rhode Island (private angler)	10; and 9 or greater for shore mode at 3 designated sites	30 fish	May 1- December 31
Connecticut (party/charter)	11	20 fish from May 1-Aug 31 and Nov 1-Dec 31; 45 fish from Sept 1-Oct 31	May 1- December 31
Connecticut (private angler)	10.5; and 9 for shore mode at 46 designated sites	20 fish	May 1- December 31
New York (party/charter)	10	30 fish from May 1-Aug 31 and Nov 1-Dec 31; 45 fish from Sept 1-Oct 31	May 1- December 31
New York (private angler)	10	30 fish	May 1- December 31
New Jersey	9	50 fish	Jan 1-Feb 28 and July 1 – December 31
Delaware	8	50 fish	All Year
Maryland	8	50 fish	All Year
Virginia	8	50 fish	All Year
North Carolina	8	50 fish	All Year

Table 5. Projected recreational scup landings (in number of fish) relative to Commission targets, for 2012, by state.

State	2012 Target	2012 Landings ^a	Percent Coverage (%)
MA	6,781,019 ^b	1,587,005	0%
RI		497,504	
CT		868,474	
NY		592,237	
NJ	^c	119,961	N/A
DE	^c	85	N/A
MD	^c	0	N/A
VA	^c	1,425	N/A
NC	^c	1,799	N/A
Total		3,668,490	

^a Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 31, 2013.

^b States of MA, RI, CT, and NY formed a multi-state region and pooled landings, targets, and implemented similar regulations.

^c State does not have specific target. N/A=Not applicable.

Table 6. a) Average percent of scup landed (in number) by wave, based on 1996-2000 MRFSS landings data and b) projected reduction in scup landings (in number) associated with closing one day per wave, based on 1996-2000 MRFSS landings data.

a.

State	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
MA	0.0	0.0	37.4	31.5	31.1	0.0
RI	0.0	0.0	4.9	48.1	45.7	1.3
CT	0.0	0.0	8.2	49.6	42.2	0.0
NY	0.0	0.0	22.0	27.7	48.8	1.5
NJ	0.0	0.3	0.0	3.0	78.6	18.1
DE	0.0	0.0	0.0	9.0	89.9	1.1
MD	0.0	0.0	0.0	46.2	0.0	53.8
VA	0.0	0.0	0.0	0.0	87.8	12.2
NC	0.0	3.3	40.9	31.3	24.5	0.0
Coast	0.0	0.4	12.6	27.4	49.8	9.8

b.

State	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
MA	0.0	0.0	0.61	0.51	0.51	0.0
RI	0.0	0.0	0.08	0.78	0.75	0.02
CT	0.0	0.0	0.13	0.80	0.69	0.00
NY	0.0	0.0	0.36	0.45	0.80	0.02
NJ	0.0	0.01	0.0	0.05	1.29	0.30
DE	0.0	0.0	0.0	0.15	1.47	0.02
MD	0.0	0.0	0.0	0.74	0.0	0.88
VA	0.0	0.0	0.0	0.0	1.44	0.20
NC	0.0	0.05	0.67	0.50	0.40	0.0
Coast	0.0	0.01	0.21	0.44	0.82	0.16

Table 7. Number of scup recreational fishing trips, harvest limit, landings, and fishery performance from Maine through North Carolina, 1991 to 2014.

Year	Number of Fishing Trips^a	Percentage of Directed Trips relative to Total Trips^{a,b}	Recreational Harvest Limit (million lb)	Recreational Landings of Scup (million lb)^d	Percentage Overage (+)/ Underage (-)
1993	499,703	1.9	None	3.20	NA
1994	435,625	1.6	None	2.63	NA
1995	242,956	0.9	None	1.34	NA
1996	241,322	0.9	None	2.16	NA
1997	198,754	0.7	1.95	1.20	-38
1998	213,842	0.8	1.55	0.88	-43
1999	231,596	0.9	1.24	1.89	+52
2000	485,039	1.4	1.24	5.44	+339
2001	484,604	1.3	1.77	4.26	+141
2002	481,716	1.6	2.71 ^c	3.62	+34
2003	971,770	2.8	4.01 ^c	8.48	+111
2004	698,561	2.0	4.01 ^c	4.24	+6
2005	545,729	1.5	3.96 ^c	2.54	-36
2006	547,761	1.5	4.15 ^c	2.93	-29
2007	516,752	1.4	2.74 ^c	3.65	+33
2008	536,307	1.5	1.83 ^c	4.04	+121
2009	538,084	1.8	2.59 ^c	2.94	+14
2010	699,516	2.4	3.01 ^c	5.74	+91
2011	477,275	1.8	5.74 ^c	3.66	-36
2012	603,126	2.3	8.45 ^c	4.17	-51
2013	NA	NA	7.55 ^c	NA	NA
2014	NA	NA	7.03 ^c	NA	NA

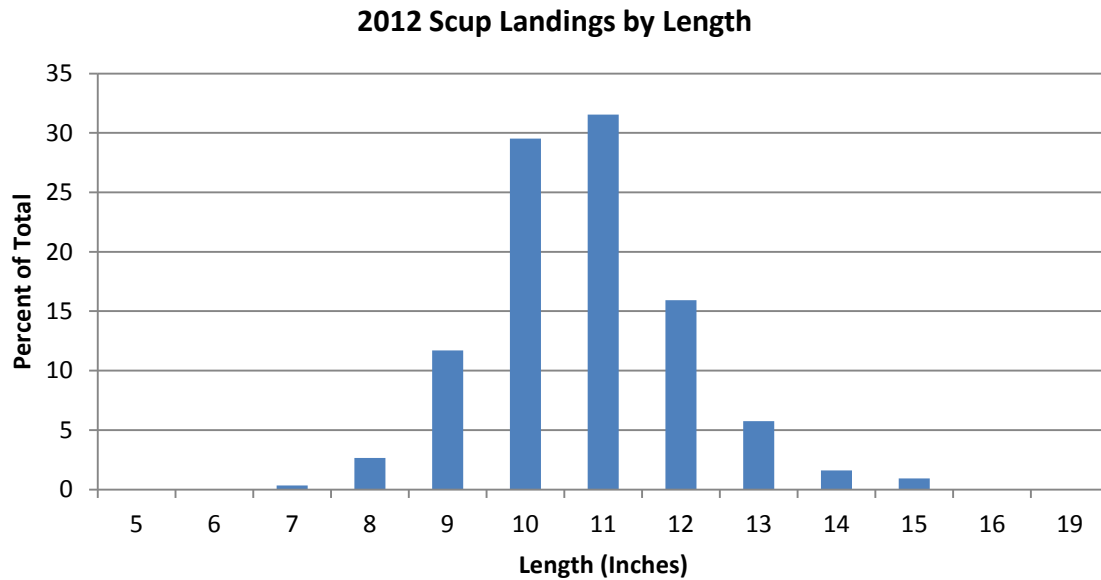
^a Estimated number of recreational fishing trips (expanded) where the primary target species was scup, Maine through North Carolina. Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, November 4, 2013. ^b Source of total trips for all species combined: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, November 4, 2013. ^c Adjusted for research set-aside. ^d Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 31, 2013. NA = Data not available.

Table 8. Catch per angler trip for scup, from 2011 Waves 1-4 MRFSS data.^a

No. caught per trip	Frequency	Fish Landed	New catch per trip with 10 fish possession limit	New Fish Landed	
1	78	78	1	78	
2	44	88	2	88	
3	15	45	3	45	
4	20	80	4	80	
5	5	25	5	25	
6	10	60	6	60	
7	5	35	7	35	
8	4	32	8	32	
9	6	54	9	54	
10	6	60	10	60	
12	2	24	12	24	
14	3	42	14	42	
16	3	48	16	48	
17	1	17	17	17	
19	3	57	19	57	
21	2	42	20	40	
35	1	35	20	20	
26	4	104	20	80	
27	4	108	20	80	
28	1	28	20	20	
30	1	30	20	20	
31	1	31	20	20	
32	1	32	20	20	
34	2	68	20	40	
35	1	35	20	20	
37	1	37	20	20	
38	1	38	20	20	
40	7	280	20	140	
41	1	41	20	20	
43	1	43	20	20	
45	1	45	20	20	
48	1	48	20	20	
50	1	50	20	20	Reduction
Total	237	1018		580	43%

^aPossession limits in 2011 included 10 fish in Federal waters, 10 or 40 fish from Massachusetts through New York, and 50 fish from New Jersey south.

Figure 1. Length frequency of Type A (landed/observed) scup from 2012 MRIP data.



References

Terceiro M. 2012. Stock Assessment of Scup for 2012. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 12-21; 148 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at <http://www.nefsc.noaa.gov/publications/crd/>.