

**Mid-Atlantic Fishery Management Council**

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MEMORANDUM**Date:** July 29, 2015**To:** Council**From:** Julia Beaty, staff**Subject:** Scup management measures for 2016-2018

The following materials are provided for Council consideration of scup management measures for 2016-2018. Please note that many items are found under other tabs.

Documents found behind this tab:

- 1) Staff Memo dated July 9, 2015
- 2) 2015 Scup Fishery Information Document

Documents found behind other tabs:

- 3) Advisory Panel comments from July 29 webinar and additional advisor comments received through July 29 (*found in Tab J*)
- 4) July 2015 Monitoring Committee Meeting Summary (*found in Tab 9*)
- 5) July 2015 SSC meeting report dated July 27, 2015 (*found in Tab 8*)
- 6) 60th Northeast Regional Stock Assessment Workshop (60th SAW) Assessment Summary Report (*found in Tab 8*)
- 7) 2015 Summer Flounder, Scup, and Black Sea Bass Fishery Performance Report (*found in Tab 9*)



Scup Fishery Information Document

June 2015

This document provides a brief overview of the biology, stock condition, management system, and fishery performance for scup with an emphasis on 2014, the most recent complete fishing year.

1. Biology

Scup (*Stenotomus chrysops*) are a schooling, demersal (i.e., bottom-dwelling) species. They are found in a variety of habitats in the Mid-Atlantic. Essential Fish Habitat (EFH) for scup includes demersal waters, areas with sandy or muddy bottoms, mussel beds, and sea grass beds from the Gulf of Maine through Cape Hatteras, North Carolina. Scup undertake extensive seasonal migrations between coastal and offshore waters. Scup are found in estuaries and coastal waters during the spring and summer, and in the fall and winter they move offshore and to the south, to outer continental shelf waters south of New Jersey. Scup spawn once annually over weedy or sandy areas, mostly off of southern New England. Spawning takes place from May through August, peaking in June and July.¹

About 50% of scup are sexually mature at two years of age (at about 17 cm total length). Nearly all scup older than three years of age are sexually mature. Scup reach a maximum age of at least 14 years. They may live as long as 20 years; however few scup older than age 7 are caught in the mid-Atlantic.^{2,3}

Adult scup are benthic feeders. They consume a variety of prey, including small crustaceans (including zooplankton), polychaetes, mollusks, small squid, vegetable detritus, insect larvae, hydroids, sand dollars, and small fish. The Northeast Fisheries Science Center (NEFSC) food habits database lists several predators of scup, including several shark species, skates, silver hake, bluefish, summer flounder, black sea bass, weakfish, lizardfish, king mackerel, and goosefish.¹

2. Status of the Stock

Scup was designated as overfished in 2005, triggering the establishment of a rebuilding plan (implemented in 2007 via Amendment 14 to the FMP). Scup was declared rebuilt ahead of schedule in 2009 after a benchmark stock assessment determined that the stock was no longer overfished and overfishing was not occurring.²

The most recent update to the scup stock assessment occurred in 2012 and indicated that scup was not overfished and overfishing was not occurring in 2011 (Figures 1 and 2).³ As of June 2015, an updated benchmark stock assessment is undergoing peer review. The final assessment report is expected to be available in July 2015, at <http://www.nefsc.noaa.gov/saw/>.

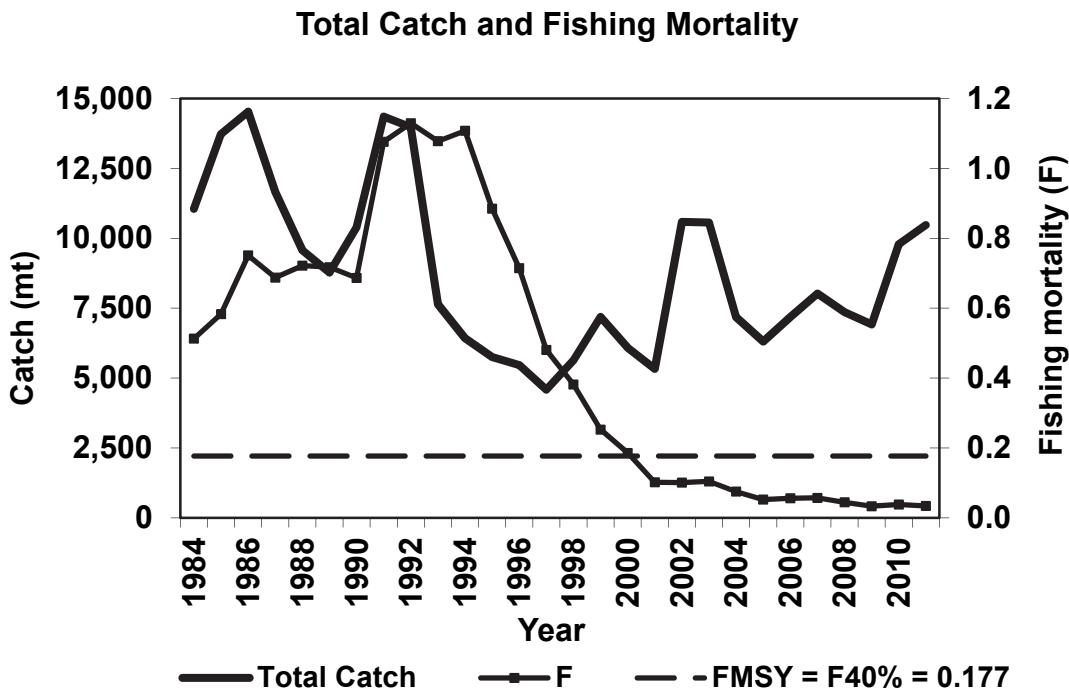


Figure 1: Total fishery catch and fishing mortality rate (F) time series for scup based on the 2012 stock assessment update. The horizontal dashed line is the fishing mortality reference point. Overfishing is occurring when the fishing mortality rate exceeds this threshold.³

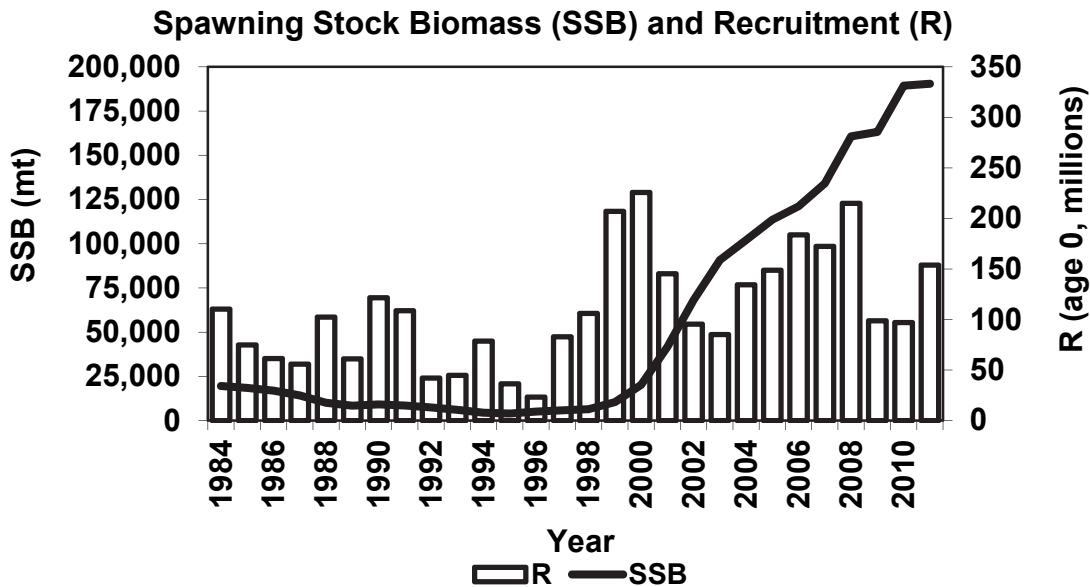


Figure 2: Spawning stock biomass (SSB) and Recruitment (R) time series for scup based on the 2012 stock assessment update.³

3. Management System and Overall Fishery Performance

The Mid-Atlantic Fishery Management Council (MAFMC or Council) and the Atlantic States Marine Fisheries Commission (ASMFC or Commission) work cooperatively to develop fishery regulations for scup off the east coast of the United States. The Council and Commission work in conjunction with the National Marine Fisheries Service (NMFS), which serves as the federal implementation and enforcement entity. This cooperative management endeavor was developed because a significant portion of the catch is taken from both state waters (0-3 miles offshore) and federal waters (3-200 miles offshore, also known as the Exclusive Economic Zone or EEZ). The management unit for scup includes U.S. waters from Cape Hatteras, North Carolina to the U.S.-Canadian border.

The Fishery Management Plan (FMP) for scup has been in place since 1996, when it was incorporated into the Summer Flounder FMP through Amendment 8 to that plan. Amendment 8 also established measures to ensure effective management of scup fisheries, including gear restrictions, reporting requirements, commercial quotas, a moratorium on new commercial scup permits, recreational possession limits, and minimum size restrictions. The Council has made several adjustments to the FMP since 1996. The FMP and subsequent amendments and framework adjustments can be found at: www.mafmc.org/sf-s-bsb/.

Scup fisheries are currently managed through output controls (catch and landings limits), with 78% of the allowable catch allocated to the commercial fishery, and 22% of allowable catch allocated to the recreational fishery.

The Council's Scientific and Statistical Committee (SSC) recommends annual Acceptable Biological Catch (ABC) levels for scup, which are then approved by the Council and Commission and submitted to NMFS. The ABC is divided into commercial and recreational Annual Catch Limits (ACLs), based on the quota allocation percentages prescribed in the FMP. The Council first implemented recreational and commercial ACLs, with a system of overage accountability, in 2012. Both ABCs and ACLs are catch-based limits (i.e., they include both projected landings and discards). Projected discards are subtracted to determine the commercial quota and recreational harvest limit, which are landings-based limits. Scup catch and landings limits for the past ten years are shown in Table 1.

Scup support sizable commercial and recreational fisheries in the Mid-Atlantic region. Total scup landings (commercial and recreational) from Maine to North Carolina peaked in 1981 at over 27 million pounds, and reached a low of 5.1 million pounds in 1998. In 2014, about 20.05 million pounds of scup were landed in total by commercial and recreational fishermen (Figure 3).^{4,5}

Table 1: Summary of catch limits, landings limits, and landings for commercial and recreational scup fisheries from 2005 through 2015.

Measure	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
ABC (millions of lb) ^a	--	--	--	--	11.70	17.09	51.70	40.88	38.71	35.99	33.77
TAC (millions of lb) ^b	18.65	19.79	13.97	9.90	15.54	17.09	31.92	40.88	38.71	35.99	33.77
Commercial ACL (millions of lb) ^c	--	--	--	--	--	--	--	31.89	30.19	28.07	26.35
Commercial quota (millions of lb) ^d	12.23	11.93	8.90	5.24	8.37	10.68	20.36	27.91	23.53	21.95	21.23
Commercial landings (millions of lb)	8.18	9.00	9.24	5.22	8.20	10.73	15.03	14.88	17.87	15.93	--
% of commercial quota landed	67%	75%	104%	100%	98%	100%	74%	53%	76%	72%	--
Recreational ACL (millions of lb) ^c	--	--	--	--	--	--	--	8.99	8.52	7.92	7.43
Recreational harvest limit (millions of lb) ^d	3.96	4.15	2.74	1.83	2.59	3.01	5.74	8.45	7.55	7.03	6.80
Recreational landings (millions of lb)	2.69	3.72	4.56	3.79	3.23	5.97	3.67	4.17	5.11	4.12	--
% of recreational limit harvested	68%	90%	166%	207%	125%	198%	64%	49%	68%	59%	--

^a The ABC is the Acceptable Biological Catch, recommended by the SSC and approved by the Council. The ABC is divided into commercial and recreational annual catch limits (ACLs), based on the allocation percentages prescribed in the FMP.

^b Prior to the implementation of the 2011 Omnibus ACLs and AMs Amendment, the Council specified a Total Allowable Catch (TAC) instead of an ABC for scup. Both terms refer to the total catch limit in a given year, but the amounts occasionally differed during the transition years of 2009-2011. In 2009 this was due to NMFS specifying a revised catch limit after new scientific information became available. In 2011, the difference was due to the Council specifying a more conservative limit than recommended by the SSC.

^c The ACLs (Annual Catch Limits) are annual sector-specific catch limits for the commercial and recreational fisheries. The ACLs include both landings and discards.

^d For 2005-2014, commercial quotas and recreational harvest limits are adjusted for both Research Set Aside (RSA) and projected discards. Quotas and harvest limits for 2015 do not reflect an adjustment for RSA, as the program was suspended for 2015.

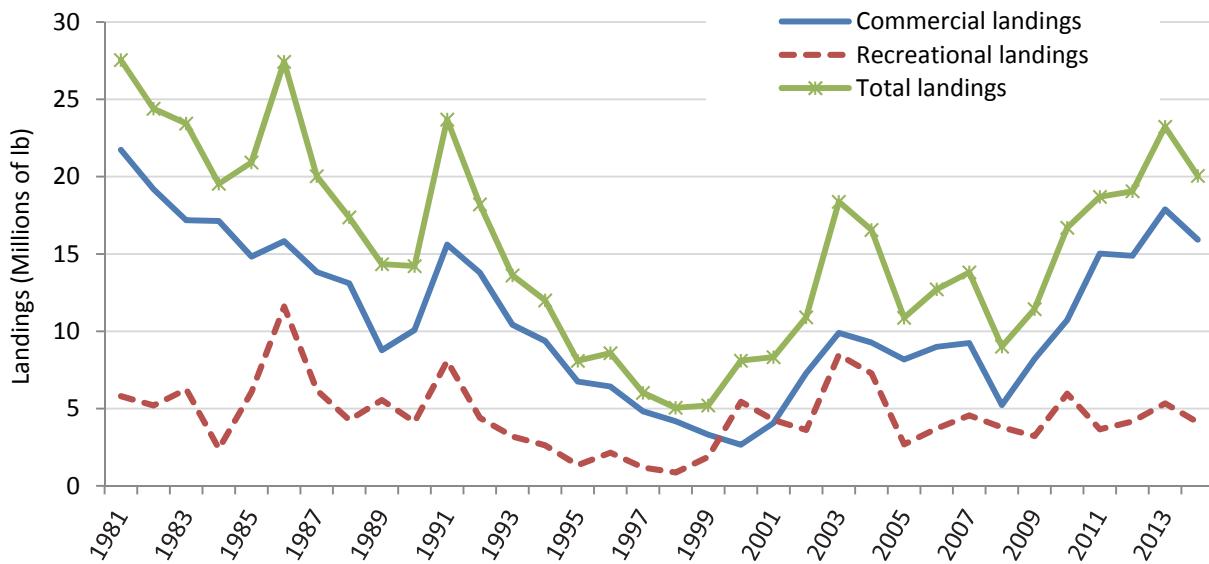


Figure 3: Commercial and recreational scup landings (millions of pounds), Maine through North Carolina, 1981-2014.^{4,5}

4. Commercial Fishery Regulations and Performance

Commercial landings for scup peaked in 1981 at 21.73 million pounds, and reached a low of 2.66 million pounds in 2000 (Figure 3). In 2014, commercial fishermen landed 15.93 million pounds of scup (73% of the commercial quota).⁴

A moratorium permit is required to fish commercially for scup. Moratorium permits became a requirement in the commercial scup fishery after Amendment 8 established a limited-entry system. In 2014, 702 vessels held federal commercial scup permits.⁶

The commercial scup fishery operates year-round, taking place mostly in federal waters during the winter months and mostly in state waters during the summer. A coast-wide commercial quota is allocated between three quota periods, known as Winter I, Summer, and Winter II (Table 2). The Council and Commission developed these seasonal quota periods ensure that both smaller day boats, which typically operate near shore in the summer months, and larger vessels, which typically operate offshore in the winter months, would have access to quota. The summer period quota is divided among states (Table 3). Once the quota for a given period is reached, the commercial fishery is closed for the remainder of that period. For years in which the full Winter I commercial scup quota is not harvested, unused quota from the Winter I period will be added to the quota for the Winter II period. Any quota overages during the Winter I and II periods are subtracted from the quota allocated to those periods in the following year. Quota overages during the summer period are subtracted from the following year's quota only in the states where the overages occurred.

The Winter I and Winter II periods have possession limits of 50,000 and 12,000 pounds, respectively. However, if the Winter I quota is not reached, the Winter II possession limit increases by 1,500 pounds for every 500,000 pounds not caught during Winter I.

Table 2: The dates, allocations, and possession limits associated with the three quota periods for the commercial scup fishery.

Quota Period	Dates	Percentage of commercial quota allocated	Possession limit
Winter I	January 1 – April 30	45.11%	50,000 pounds, until 80% of Winter I allocation is reached, then reduced to 1,000 pounds.
Summer	May 1 – October 31	38.95%	State-specific
Winter II	November 1 – December 31	15.94%	12,000 pounds. If Winter I quota is not reached, the Winter II possession limit increases by 1,500 pounds for every 500,000 pounds not caught during Winter I.

Table 3: The ASMFC state-by-state quotas for the commercial scup fishery summer quota period.

State	Share of summer quota
Maine	0.1210%
Massachusetts	21.5853%
Rhode Island	56.1894%
Connecticut	3.1537%
New York	15.8232%
New Jersey	2.9164%
Maryland	0.0119%
Virginia	0.1650%
North Carolina	0.0249%
Total	99.9908%

In 2012, the Winter I commercial possession limit rose from 30,000 pounds to 50,000 pounds of scup. Despite this change, it remains very rare for more than 40,000 pounds of scup to be landed in a single trip. In 2014, only 3 trips landed more than 40,000 pounds of scup and only 13 trips landed more than 30,000 pounds (Table 4). Ninety-five percent of commercial scup trips during the Winter I period in 2014 resulted in landings of less than 8,753 pounds. Ninety-five percent of commercial scup trips during the Winter II period in 2014 landed less than 3,501 pounds of scup (Table 5).⁴

Table 4: The total number of scup trips during Winter I period from 2011 through 2014, and the number of trips landing greater than 20,000, 30,000, 40,000, and 50,000 pounds of scup.⁴

Year	Total Winter I trips	Number of trips landing more than:			
		20,000 lb	30,000 lb	40,000 lb	50,000 lb
2011	3,342	17	0	0	0
2012	4,753	19	5	C	0
2013	3,749	36	11	C	0
2014	3,377	29	13	3	0

Table 5: The 95th percentile of landings per trip in the commercial scup fishery during Winter I and Winter II periods from 2011 through 2014 (meaning that 95% of scup trips caught less than the number of pounds listed below).⁴

95 th percentile –landings (pounds) per trip		
Year	Winter I	Winter II
2011	8,075	3,742
2012	4,979	3,551
2013	8,872	3,280
2014	8,753	3,501

The commercial scup fishery in federal waters is predominantly a bottom otter trawl fishery. In 2014, about 96% of the scup caught (by weight) by federal commercial fishing permit holders were caught with bottom otter trawls. An additional 1.3% were caught with pots and traps. About 1% were caught with sink gill nets. Other gear types each accounted for less than 1% of the commercial scup catch in 2014.⁷

Trawl vessels with a scup moratorium permit may not possess 500 pounds or more of scup per trip from November 1 through April 30, or 200 pounds or more of scup per trip from May 1 through October 31, unless fishing with nets that have a minimum mesh size of 5-inch diamond mesh, applied throughout the codend for at least 75 continuous meshes forward of the terminus of the net. Pots and traps for scup are required to have degradable hinges and escape vents that are either circular with a 3.1 inch minimum diameter or square with a minimum length of 2.25 inches on the side.

Two gear-restricted areas (GRAs) were first implemented in 2000 with the goal of reducing scup discards in small mesh fisheries. Commercial fishermen are prohibited from targeting longfin squid, black sea bass, or silver hake using mesh smaller than 5 inches in the Northern GRA from January 1 through March 1, and in the Southern GRA from November 1 through December 1 (Figure 4). Since the implementation of the GRAs, scup discards as a proportion of the total commercial catch have decreased, averaging about 35%.² The GRAs are thought to have contributed to the recovery of the scup population in the mid- to late-2000s.⁸

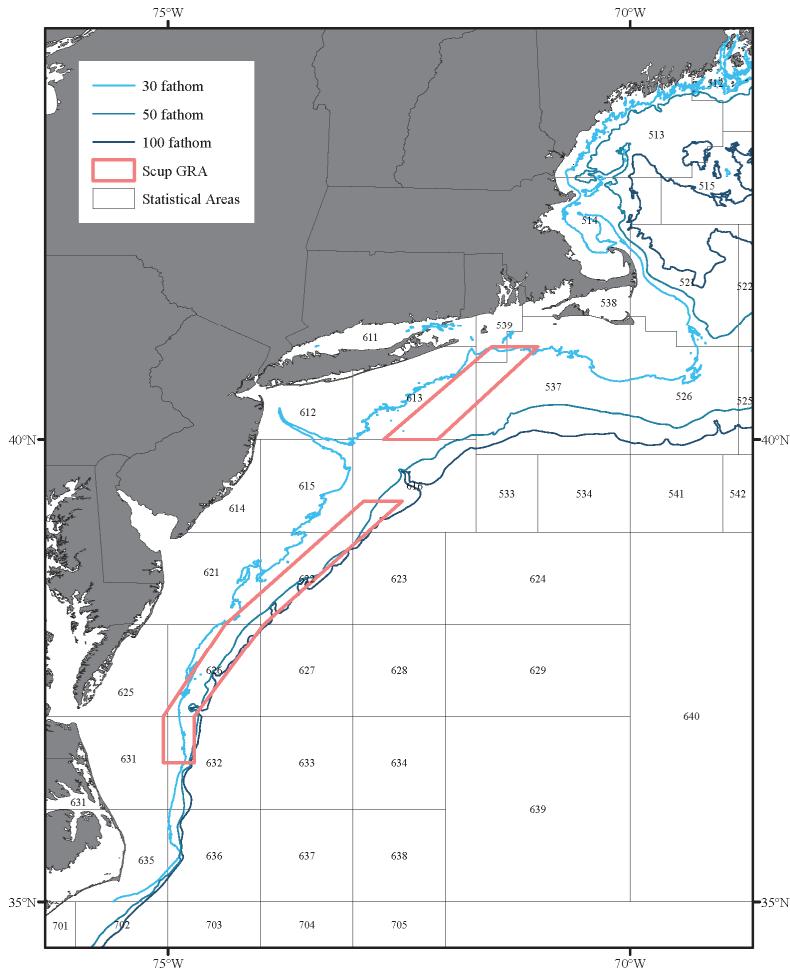


Figure 4: The Northern and Southern scup Gear Restricted Areas (GRAs), as currently configured.

Vessel Trip Report (VTR) data suggest that NMFS statistical areas 616 and 537 were responsible for the largest percentage of the commercial scup catch in 2014. Most of the commercial fishing trips that caught scup in 2014 occurred in statistical area 539, off of Rhode Island (Table 6, Figure 5).⁷

Table 6: Statistical areas that each accounted for at least 5% of the total commercial scup catch in 2014, with associated number of trips.⁷

Statistical Area	Percent of 2014 Commercial Scup Catch	Number of Trips
616	25%	401
537	22%	967
539	13%	1559
611	11%	1371
613	9%	801
615	6%	91

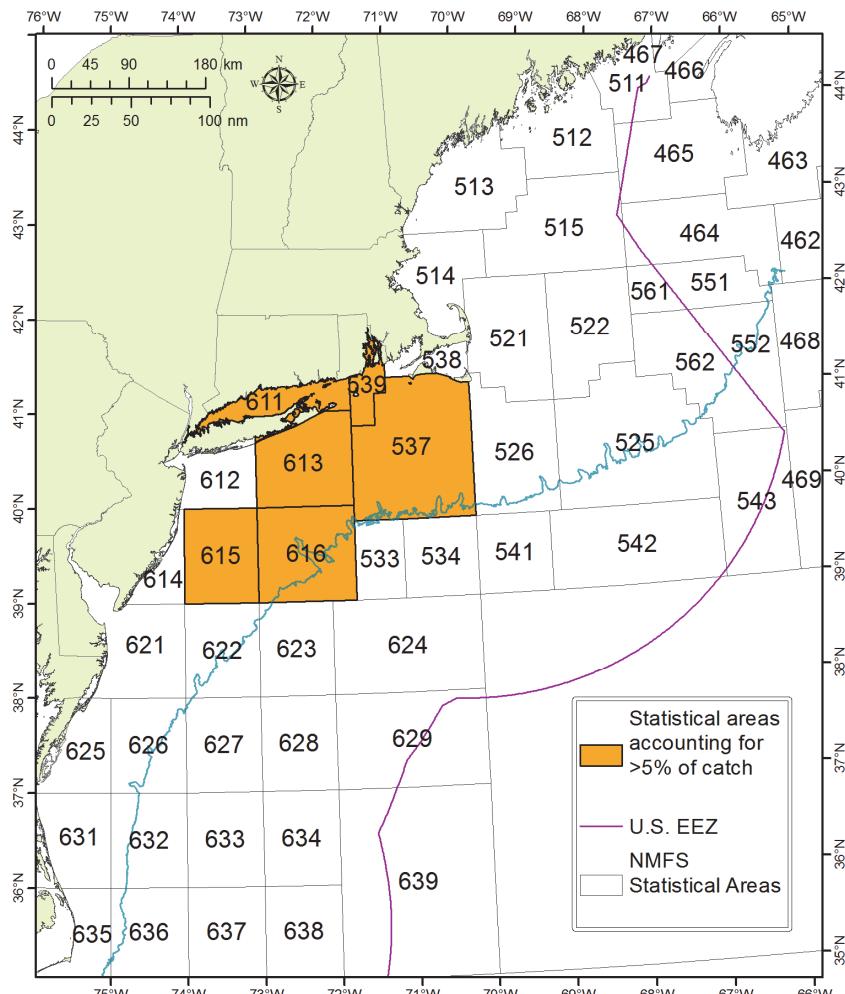


Figure 5: NMFS Statistical Areas, highlighting those that each accounted for more than 5% of the commercial scup catch in 2014.⁷

Over the past two decades, total scup ex-vessel revenue has ranged from a low of \$5.16 million in 2000 to a high of \$11.41 million in 1996 (adjusted to real 2014 dollars to account for inflation).⁴

In 2014, 15.93 million pounds of scup were landed by commercial fishermen from Maine to North Carolina. The average price per pound in 2014 was \$0.60, which resulted in a total ex-vessel value of \$9.54 million.⁴

There is a strong relationship between the amount of scup landed in a given year and the average price per pound. As landings increase, price generally decreases (Figure 6). The highest average price per pound over the past two decades was \$1.46 (\$2.41 in 2014 dollars) and occurred in 1998. The lowest mean price per pound was \$0.55 and occurred in 2013.⁴

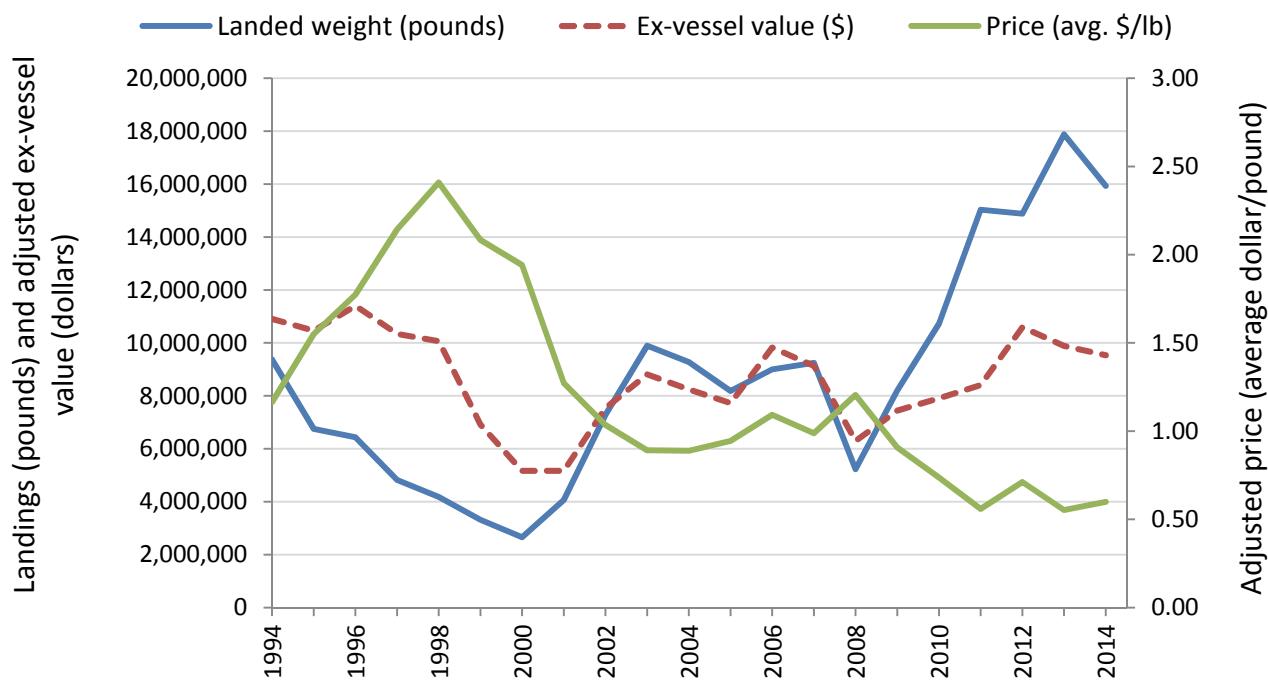


Figure 6: Landings, ex-vessel value, and price for scup from Maine through North Carolina, 1994-2014. Ex-vessel value and price are adjusted to real 2014 dollars.⁴

Landings and total value tend to be lower during Winter II compared to the Winter I and Summer periods (note that Winter II is also the shortest quota period). Price per pound is variable, but on average has been slightly higher during the Summer period compared to Winter I and Winter II in recent years (Figure 7).⁴

Period	Year	Landings (millions of lb)	Adjusted value (millions of dollars)	Adjusted price (average \$/lb)
Winter I	2007	3.40	3.69	1.09
	2008	2.40	2.49	1.04
	2009	3.77	2.98	0.79
	2010	4.88	2.86	0.59
	2011	5.81	2.84	0.49
	2012	5.41	4.19	0.77
	2013	7.44	3.92	0.53
	2014	2.17	1.55	0.71
Summer	2007	4.25	4.06	0.95
	2008	1.93	3.00	1.55
	2009	3.07	3.42	1.11
	2010	4.31	3.71	0.86
	2011	6.59	4.00	0.61
	2012	6.78	4.88	0.72
	2013	8.23	4.49	0.55
	2014	7.61	4.73	0.62
Winter II	2007	1.59	1.39	0.87
	2008	0.89	0.80	0.89
	2009	1.36	1.05	0.77
	2010	1.54	1.34	0.87
	2011	2.64	1.58	0.60
	2012	2.69	1.52	0.56
	2013	2.21	1.49	0.67
	2014	2.17	1.55	0.71

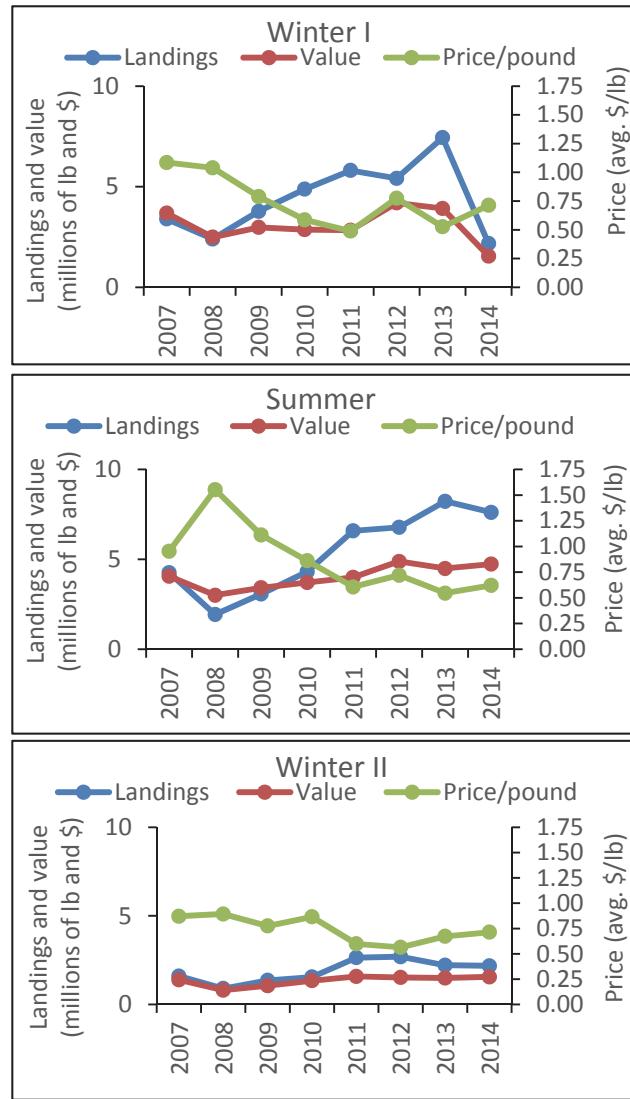


Figure 7: Commercial scup landings, ex-vessel value, and price by quota period, 2007-2014.⁴ Value and price are adjusted for inflation to show equivalent real 2014 dollars.

At least 100,000 pounds of scup were landed by commercial fishermen at each of 20 ports in seven states in 2014. These 20 ports accounted for approximately 92% of all 2014 commercial scup landings. Point Judith, Rhode Island was the leading port in 2014, both in terms of pounds of scup landed and number of vessels landing scup (Table 7).⁴ The ports and communities that are dependent on scup are described in Amendment 13 to the FMP (available at <http://www.mafmc.org/sf-s-bsb/>). Detailed community profiles developed by the Northeast Fisheries Science Center's Social Science Branch can be found at www.mafmc.org/communities/.

Table 7: Ports reporting at least 100,000 pounds of scup landings in 2014, based on NMFS dealer data. C = Confidential.⁴

Port	Scup Landings (lb)	% of total commercial scup landings ^a	Number of vessels
Point Judith, RI	5,872,354	36.9%	131
Montauk, NY	2,160,084	13.6%	85
Point Pleasant, NJ	1,144,608	7.2%	32
Cape May, NJ	1,021,392	6.4%	28
New Bedford, MA	826,025	5.2%	59
Ocean City, MD	530,761	3.3%	5
Chincoteague, VA	370,087	2.3%	21
Little Compton, CT	361,070	2.3%	13
New London, CT	344,898	2.2%	8
Stonington, CT	342,791	2.2%	20
Hampton Bay, NY	313,103	2.0%	30
Mattituck, NY	259,046	1.6%	4
Hampton, VA	218,108	1.4%	28
Newport, RI	199,349	1.3%	11
Belford, NJ	175,671	1.1%	16
Newport News, VA	166,023	1.0%	14
Ammagansett, NY	C	C	C
Point Lookout, NY	122,825	0.8%	5
Bristol, RI	113,599	0.7%	4
Providence, RI	C	C	C

Over 180 federally-permitted dealers from Maine through North Carolina bought scup in 2014. More dealers bought scup in New York than in any other state (Table 8). All dealers purchased approximately \$9.54 million worth of scup in 2014.⁴

Table 8: Dealers reporting buying scup, by state in 2014. C = Confidential.⁴

State	NH	MA	RI	CT	NY	NJ	DE	MD	VA	NC
Number of Dealers	C	32	34	16	46	23	C	3	12	14

5. Recreational Fishery Regulations and Performance

In federal waters, the recreational scup fishery is managed on a coast-wide basis. Federal regulations include a minimum size of 9 inches total length, a year-round open season, and a possession limit of 50 scup (an increase from a 30-scup possession limit in 2014; Table 9). The Commission applies a regional management approach to recreational scup fisheries in state waters, where the four northern states (New York through Massachusetts) develop regulations intended to land 97 percent of the scup recreational harvest limit. The minimum size, possession limit, and open season for recreational scup fisheries in state waters vary by state (Table 10).

Table 9: Federal recreational measures for scup, 2005 through 2015.

Regulation	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Minimum size (inches, total length)	10	10	10	10.5	10.5	10.5	10.5	10.5	10	9	9
Possession limit	50	50	50	15	15	10	10	15	30	30	50
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 9/18–11/30	1/1–2/28 and 9/18–11/30	1/1–2/28 and 10/1–10/31	6/6–9/26	6/6–9/26	5/19–10/14 and 11/1–12/31	1/1–12/31	1/1–12/31	1/1–12/31

Table 10: Scup recreational fishing measures in state waters for 2015.

State	Minimum Size (in)	Possession Limit	Open Season
Massachusetts	10	30 fish	May 1- December 31
Massachusetts (For-Hire)	10	45 fish	May 1 - June 30
		30 fish	July 1 - December 31
		30 fish	May 1- December 31
Rhode Island	10		
RI Shore Program (7 designated sites)	9	30 fish	May 1- December 31
Rhode Island (For-Hire)	10	30 fish	May 1- August 31 and November 1-December 31
		45 fish	September 1-October 31
Connecticut	10	30 fish	May 1- December 31
Connecticut shore program (46 designated shore sites)	9		
CT (For-Hire)	10	30 fish	May 1-August 31 and November 1-December 31
		45 fish	September 1-October 31
New York	10	30 fish	May 1- December 31
New York (For-Hire)	10	30 fish	May 1- August 31 and November 1-December 31
		45 fish	September 1- October 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

Scup are popular among recreational fishermen in the Mid-Atlantic and southern New England. Recreational data for years 2004 and later are available from the Marine Recreational Information Program (MRIP). For years prior to 2004, recreational data were generated by the Marine Recreational Fishery Statistics Survey (MRFSS). Recreational catch and landings of scup peaked in 1986, when an estimated 30.87 million scup were caught and 24.8 million scup were landed by recreational fishermen from Maine to North Carolina. Recreational scup catch was lowest in 1998 when an estimated 2.67 million fish were caught (1.21 million fish landed; Table 11).⁵

Vessels carrying passengers for hire in federal waters must obtain a federal party/charter permit. In 2014, 710 party and charter vessels held scup federal party/charter permits. Many of these vessels also hold recreational for-hire permits for summer flounder and black sea bass.⁶

Table 11: Estimated recreational catch and landings of scup from Maine through North Carolina from 1981 through 2014.⁵

Year	Recreational catch (thousands of fish)	Recreational landings (thousands of fish)	Recreational landings (thousands of pounds)
1981	10,378	9,086	5,812
1982	7,185	6,456	5,205
1983	10,156	8,837	6,252
1984	7,775	6,057	2,416
1985	13,868	10,814	6,093
1986	30,874	24,825	11,605
1987	12,377	9,916	6,197
1988	7,540	6,063	4,267
1989	11,395	9,178	5,557
1990	10,172	8,043	4,140
1991	16,855	13,283	8,087
1992	10,078	7,765	4,412
1993	7,077	5,664	3,197
1994	5,662	4,282	2,628
1995	3,767	2,419	1,344
1996	4,676	2,972	2,156
1997	3,077	1,923	1,198
1998	2,671	1,212	875
1999	4,636	3,251	1,886
2000	11,284	7,244	5,443
2001	9,925	5,099	4,262
2002	7,580	3,647	3,624
2003	14,661	9,452	8,484
2004	13,426	7,154	7,277
2005	7,041	2,591	2,692
2006	9,615	3,434	3,716
2007	10,053	4,749	4,564
2008	10,706	3,487	3,788
2009	8,704	3,134	3,230
2010	11,147	5,148	5,969
2011	6,473	3,056	3,665
2012	8,829	3,669	4,172
2013	9,545	4,716	5,113
2014	8,623	3,822	4,122

Most recreational scup catch takes place in state waters during the warm summer months when the fish migrate inshore. Between 2005 and 2014, about 97% of recreational scup harvest occurred in state waters and about 3% occurred in federal waters (Table 12). Four states, Massachusetts, New York, Connecticut, and Rhode Island, accounted for 98.8% of recreational scup harvest in 2014 (Table 13).⁵

Table 12: Estimated percentages of scup caught by recreational fishermen in state and federal waters from Maine through North Carolina, 2005 through 2014.⁵

Year	State waters	Federal waters
2005	98.25%	1.75%
2006	93.63%	6.37%
2007	98.28%	1.72%
2008	96.24%	3.76%
2009	98.14%	1.86%
2010	95.83%	4.17%
2011	96.39%	3.61%
2012	99.51%	0.49%
2013	95.05%	4.95%
2014	95.55%	4.45%
2005-2014 average	96.69%	3.31%
2012-2014 average	96.70%	3.30%

Table 13: State contribution (as a percentage) to total recreational landings of scup, Maine through North Carolina, in 2013 and 2014.⁵

State	2013	2014
Maine	0.0%	0.0%
New Hampshire	0.0%	0.0%
Massachusetts	39.2%	30.5%
Rhode Island	17.3%	25.5%
Connecticut	19.5%	14.8%
New York	20.7%	28.0%
New Jersey	3.1%	1.2%
Delaware	0.0%	0.0%
Maryland	0.0%	0.0%
Virginia	0.0%	0.0%
North Carolina	0.0%	0.0%
Total	100%	100%

About 69% of recreational scup landings in 2014 came from anglers who fished on private or rental boats. About 18% of recreational scup landings came from anglers fishing on party or charter boats, and about 13% came from anglers fishing from shore (Table 14).⁵

Table 14: The number of scup landed by recreational fishing mode, from Maine through North Carolina, 1981 through 2014.⁵

Year	Shore (thousands of fish)	Party/charter (thousands of fish)	Private/rental (thousands of fish)	Total (thousands of fish)
1981	772	1,055	7,257	9,084
1982	833	1,394	4,227	6,454
1983	2,227	2,997	3,613	8,837
1984	1,300	228	4,530	6,057
1985	1,122	326	9,363	10,810
1986	1,899	3,228	19,696	24,823
1987	522	584	8,810	9,916
1988	698	1,138	4,226	6,062
1989	883	1,033	7,261	9,176
1990	435	1,303	6,305	8,043
1991	1,625	2,250	9,404	13,279
1992	1,004	1,017	5,743	7,764
1993	285	1,762	3,616	5,663
1994	230	918	3,122	4,270
1995	222	837	1,359	2,419
1996	121	452	2,400	2,972
1997	141	453	1,322	1,916
1998	117	165	929	1,211
1999	198	822	2,231	3,251
2000	551	1,140	5,553	7,244
2001	766	769	3,564	5,099
2002	505	1,309	1,833	3,647
2003	859	1,330	7,264	9,452
2004	777	1,509	4,868	7,154
2005	395	166	2,029	2,589
2006	321	606	2,507	3,434
2007	353	516	3,879	4,748
2008	386	869	2,233	3,487
2009	210	1,122	1,802	3,134
2010	383	1,280	3,485	5,148
2011	302	471	2,284	3,056
2012	266	1,147	2,255	3,668
2013	915	1,394	2,408	4,716
2014	480	683	2,657	3,820

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⁶Unpublished NMFS permit data

⁷Unpublished NMFS Vessel Trip Report data

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Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

DATE: July 9, 2015

TO: Chris Moore, Executive Director

FROM: Julia Beaty and Kiley Dancy, Staff

SUBJECT: Scup Management Measures for 2016-2018

Executive Summary

The most recent benchmark stock assessment for scup was peer-reviewed and accepted by the Stock Assessment Review Committee (SARC) in June 2015. The assessment indicated that the scup stock was not overfished and overfishing was not occurring in 2014. The assessment model estimated a spawning stock biomass (SSB) of 403.27 million pounds (182,915 mt) in 2014. This is approximately two times the biomass at maximum sustainable yield ($SSB_{MSY\ proxy} = SSB_{40\%} = 192.47$ million pounds = 87,302 mt). The fishing mortality rate on fully selected age 3 scup was 0.127 in 2014. This is 42% less than the fishing mortality threshold reference point of 0.220 ($F_{MSY\ proxy}=F_{40\%}$; NEFSC 2015).

Staff recommend an Acceptable Biological Catch (ABC) of 33.23 million pounds (15,074 mt) for 2016. This results in a commercial Annual Catch Limit (ACL) of 25.92 million pounds (11,758 mt) and a recreational ACL of 7.31 million pounds (3,316 mt). Staff recommend that the commercial Annual Catch Target (ACT) and the recreational ACT be set equal to their respective sector Annual Catch Limits (ACLs) for 2016. After removing projected discards, the recommended 2016 commercial quota is 21.87 million pounds (9,919 mt) and the recommended recreational harvest limit is 6.51 million pounds (2,951 mt; Table 1).

For 2017, staff recommend an ABC of 30.09 million pounds (13,648 mt), a commercial ACL of 23.47 million pounds (10,645 mt), and a recreational ACL of 6.62 million pounds (3,003 mt). Staff recommend that the commercial and recreational ACTs be set equal to their respective ACLs for 2017. After removing projected discards, the recommended 2017 commercial quota is 19.47 million pounds (8,831 mt) and the recommended recreational harvest limit is 5.83 million pounds (2,643 mt; Table 1).

For 2018, staff recommend an ABC of 28.05 million pounds (12,725 mt), a commercial ACL of 21.88 million pounds (9,926 mt), and a recreational ACL of 6.17 million pounds (2,800 mt). Staff recommend that the commercial and recreational ACTs be set equal to their respective ACLs for 2018. After removing projected discards, the 2018 recommended commercial quota is 17.96 million pounds (8,147 mt) and the recommended recreational harvest limit is 5.39 million pounds (2,447 mt; Table 1).

Staff recommend that a thorough analysis of the current commercial management measures regarding minimum fish size, gear requirements, and possession limits be conducted for consideration by the Council and the Board at the December 2015 meeting. Pending additional analysis, staff have no specific recommendations regarding changes to these commercial management measures at this time.

Table 1: Staff-recommended multi-year catch and landings limits for scup for 2016-2018.

Management Measure	2016		2017		2018		Basis
	mil lb	mt	mil lb	mt	mil lb	mt	
OFL	35.80	16,238	32.09	14,556	29.68	13,464	Stock assessment projections
ABC	33.23	15,074	30.09	13,648	28.05	12,725	Stock assessment projections and Council risk policy
ABC landings portion	28.37	12,870	25.30	11,474	23.36	10,594	Stock assessment projections
ABC discards portion	4.86	2,204	4.79	2,174	4.70	2,131	Stock assessment projections
Commercial ACL	25.92	11,758	23.47	10,645	21.88	9,926	78% of ABC (per FMP)
Commercial ACT	25.92	11,758	23.47	10,645	21.88	9,926	Set equal to commercial ACL, or reduced from commercial ACL to account for management uncertainty
Projected commercial discards	4.05	1,839	4.00	1,814	3.92	1,778	83.4% of the ABC discards portion (the average percentage of dead discards attributable to the commercial fishery from 2012-2014)
Commercial quota	21.87	9,919	19.47	8,831	17.96	8,147	Commercial ACT minus discards
Recreational ACL	7.31	3,316	6.62	3,003	6.17	2,800	22% of ABC (per FMP)
Recreational ACT	7.31	3,316	6.62	3,003	6.17	2,800	Set equal to recreational ACL, or reduced from recreational ACL to account for management uncertainty
Projected recreational discards	0.80	365	0.79	360	0.78	353	16.6% of the ABC discards portion (the average percentage of dead discards attributable to the recreational fishery from 2012-2014)
Recreational harvest limit	6.51	2,951	5.83	2,643	5.39	2,447	Recreational ACT minus discards

Introduction

The Magnuson-Stevens Act (MSA) requires that the Council's Scientific and Statistical Committee (SSC) provide ongoing scientific advice for fishery management decisions, including recommendations for Acceptable Biological Catch (ABC), prevention of overfishing, and achieving maximum sustainable yield (MSY). The SSC must recommended ABCs that addresses scientific uncertainty. The MSA mandates that the Council's catch limit recommendations for the upcoming fishing year(s) cannot exceed the ABC recommended by the SSC.

The Council's Monitoring Committees are responsible for developing recommendations for management measures designed to achieve the ABCs recommended by the SSC. Specifically, the Monitoring Committee must recommend Annual Catch Targets (ACTs) that are equal to or less than the ABCs to address management uncertainty, and management measures designed to achieve these ACTs.

Summer flounder, scup, and black sea bass are cooperatively managed by the Council and the Atlantic States Marine Fisheries Commission (the Commission) under a single Fishery Management Plan (FMP). The Commission's Summer Flounder, Scup, and Black Sea Bass Board (the Board) and the Council meet jointly to consider the recommendations of the SSC and Monitoring Committee before deciding on proposed scup catch limits and other scup management measures. The Council and Board may set multi-year specifications for scup for up to three years at a time. The Council and Board develop scup management recommendations and submit them to the National Marine Fisheries Service (NMFS), which is responsible for implementation and enforcement of federal fisheries regulations.

This memorandum includes information to assist the SSC and Monitoring Committee in developing recommendations for the Council and Board to consider for the 2016-2018 fishing years. Additional information about fishery performance and past management measures can be found in the 2015 Scup Fishery Information Document prepared by Council staff, and the 2015 Summer Flounder, Scup, and Black Sea Bass Fishery Performance Report developed by the Council and Commission Advisory Panels.

Recent Catch and Landings

According to the 2015 benchmark scup stock assessment, 15.93 million pounds (7,228 mt) of scup were landed in the commercial fishery and 4.46 million pounds (2,025 mt) were landed in the recreational fishery in 2014 (NEFSC 2015).

As of April 25, 2015, 70% of the Winter I commercial scup quota had been landed¹. As of the week ending June 27, 2015, 45% of the Summer commercial scup quota had been landed (Table 2)².

¹ Commercial scup landings are reported weekly. The week ending April 25, 2015 was the last full week in the 2015 Winter I quota period, which lasts from January 1 through April 30.

² The Summer commercial scup quota period lasts from May 1 through October 31.

Table 2: The amount of scup landed in the commercial fishery during the Winter I period (through April 25, 2015), and the Summer quota period, as of the week ending June 27, 2015, according to NMFS GARFO weekly landings reports. The Winter I quota is a coast-wide quota. The Summer period quota is allocated among states by the Atlantic States Marine Fisheries Commission.

State	Landings (pounds)	Landings (pounds)
	January 1 – April 25, 2015 Winter I	May 1 – June 27, 2015 Summer
Maine	0	0
New Hampshire	0	0
Massachusetts	445,592	210,185
Rhode Island	1,233,012	2,368,763
Connecticut	450,953	67,329
New York	1,837,793	880,663
New Jersey	2,240,829	95,494
Delaware	0	0
Maryland	245	17,934
Virginia	268,436	52,594
North Carolina	204,221	21,563
Other	0	0
Total landings	6,681,081	3,714,525
Quota	9,578,008	8,270,083

Regulatory Review

The Council and Board set scup specifications for the 2013-2015 fishing years in 2012. In 2013 and 2014, the SSC, the Monitoring Committee, the Council, and the Board reviewed these specifications, along with stock assessment data updates, and recommended no changes to the specifications for 2014 and 2015.

The SSC used a 2012 stock assessment update to recommend ABCs for 2013-2015. The SSC recommended an ABC for 2013 using the Council's risk policy for a species with a typical life history and a level 3 stock assessment (now known as an assessment with a SSC-modified OFL probability distribution). The SSC used the 2013 OFL and 2012 projected SSB to SSB_{MSY} ratio (212%) from the 2012 stock assessment update and assigned an OFL CV of 100%. This resulted in a 2013 ABC of 38.71 million pounds (17,557 mt). The SSC used a constant F assumption to derive ABCs for 2014 and 2015. The fishing mortality rate associated with the 2013 ABC was 0.142. This rate, applied in 2014 and 2015, resulted in ABCs of 35.99 million pounds (16,325 mt) and 33.77 million pounds (15,320 mt), respectively.

The most recent benchmark stock assessment for scup was completed in June 2015 and will be reviewed at the 2015 July SSC meeting. The previous benchmark assessment for scup was completed in 2008 as part of the Data-Poor Stocks Working Group (DPSWG 2009). In 2012, the SSC reviewed an update to this assessment, which included data through 2011. The SSC considered the assessment to be a level 3 assessment. The SSC considered the following to be the most significant sources of uncertainty in the assessment:

- While older age scup (age 3+) were represented in the catch used in the assessment model, most indices used in the model did not include ages 3+. As a result, the dynamics of the older ages of scup were driven principally by catches and inferences regarding year class strength;
- There was uncertainty in the estimate of natural mortality used in the assessment;
- Uncertainties in the estimates of both the stock's biomass and the biological reference point proxy used for F_{MSY} resulted in uncertainty in the stock status;
- The SSC assumed that OFL has a lognormal distribution with a CV of 100%, based on a meta-analysis of survey and SCA accuracies;
- Recruitment appeared to be high in recent years, but it was unclear how these recent high levels would compare to historical levels of recruitment;
- Survey indices were particularly sensitive to scup availability, which resulted in high inter-annual variability;
- Uncertainties resulting from the application of trawl calibration coefficients (ALBATROSS IV vs BIGELOW) and their influence on the selectivity pattern and results of the assessment; and
- The projection on which the ABC was determined was based on an assumption that the quota would be landed in 2012, 2013, and 2014.

Biological Reference Points

The most recent benchmark assessment for scup was peer-reviewed and accepted in June 2015 as part of the 60th Stock Assessment Workshop (SAW) and Stock Assessment Review Committee (SARC). Reports for this and previous stock assessments can be found at: www.nefsc.noaa.gov/saw/.

Biological reference points estimated by the 2015 benchmark scup stock assessment include:

- A biomass reference point of SSB_{MSY proxy} = SSB_{40%} = 192.47 million pounds (87,302 mt)
- A minimum biomass threshold of $\frac{1}{2}$ SSB_{MSY proxy} = $\frac{1}{2}$ SSB_{40%} = 96.23 million pounds (43,651 mt)
- A fishing mortality reference point of F_{MSY proxy} = F_{40%} = 0.220.

Stock Status and Projections

The scup stock was not overfished and overfishing was not occurring in 2014 relative to the biological reference points from the 2015 benchmark stock assessment. Spawning stock biomass (SSB) was estimated to be 403.26 million pounds (182,915 mt) in 2014, about 2 times the new biomass reference point (SSB_{MSY proxy} = SSB_{40%} = 192.47 million pounds = 87,302 mt). Fishing mortality on the fully selected age 3 fish was 0.127 in 2014, below the new fishing mortality reference point (F_{MSY proxy} = F_{40%} = 0.220). The average recruitment from 1984 to 2014 was 109 million age 0 scup. The 2014 year class is estimated to be about 112 million fish.

The 2015 benchmark scup stock assessment included OFL projections for 2015-2018 using two different 2015 harvest assumptions: one assuming that 75% of the 2015 ABC would be harvested, and one assuming that 100% of the 2015 ABC would be harvested. These projections assume that fishing mortality rates in 2016-2018 will be at F_{MSY} (F=0.220). Staff recommend that the SSC use the projections that assume 75% of the 2015 ABC will be harvested as this is reflective of recent fishery performance.

ABC Recommendations for 2016-2018

Staff recommend that three year specifications be set for scup, for the 2016 through 2018 fishing years. In 2012 the Council and Board set multi-year specifications for scup for 2013-2015. A review of implemented specifications in the interim years (2013 and 2014) indicated that no changes to the measures were warranted. These multi-year specifications resulted in increased predictability in management for fishermen, as well as administrative time savings that allowed the Council and Board to focus efforts on other management priorities.

Since the implementation of the Council's Omnibus ACLs and AMs Amendment (Amendment 15 to the Summer Flounder, Scup, and Black Sea Bass FMP) in 2012, the SSC has calculated ABCs for scup using the Council's risk policy for a level 3 stock assessment³ and a species with a typical life history. The lead stock assessment scientist for scup used this same approach to derive ABC projections for 2016-2018. These projections were calculated under two different 2015 harvest assumptions (one assuming that 75% of the 2015 ABC is taken, and the other assuming that 100% of the 2015 ABC is taken) and three different assumptions for the OFL CV (100%, 60%, and 30%). Each approach assumes that the full ABC will be caught in 2016 and 2017. The SSB in each year is updated based on the presumed catch in the previous year.

Staff recommend that the SSC use the ABC projections that assume 75% of the ABC is taken in 2015 and that use an OFL CV of 30%, consistent with the recommendation of the SAW/SARC. The resulting ABC projections are shown in Table 3.

Table 3: ABC total catch, landings, discards, fishing mortality (F) and Spawning Stock Biomass (SSB) based on projections from the 2015 benchmark scup stock assessment (NEFSC 2015). The ABC catch level shown for 2015 is 75% of the 2015 ABC. Projected catch, landings, discards, and SSB for 2016-2018 were calculated based on the assumption that 75% of the ABC will be caught in 2015.

Year	ABC Total Catch (mil lb)	ABC Total Catch (mt)	Landings (mil lb)	Landings (mt)	Discards (mil lb)	Discards (mt)	F	P* Value	SSB (mill b)	SSB (mt)
2015	25.33*	11,490*	22.17	10,058	3.16	1,432	0.143	n/a	413.32	187,477
2016	33.23	15,074	28.37	12,870	4.86	2,204	0.203	0.4	375.84	170,479
2017	30.09	13,648	25.30	11,474	4.79	2,174	0.203	0.4	343.20	155,674
2018	28.05	12,725	23.36	10,594	4.70	2,131	0.203	0.4	316.54	143,578

*This value is 75% of the 2015 ABC of 33.77 million pounds (15,320 mt).

Other Management Measures

Recreational and Commercial Annual Catch Limits

The acceptable biological catch (ABC) is divided into a commercial Annual Catch Limit (ACL) and a recreational ACL (Figure 1). As specified in the Summer Flounder, Scup, and Black Sea Bass FMP, the commercial scup ACL is 78% of the ABC and the recreational ACL is 22% of the ABC. The ACLs

³ In March 2015 the SSC changed the name of the level 3 category to "SSC-modified OFL probability distribution".

include both landings and discards. Based on the ABC recommendations described above, staff recommend commercial ACLs of 25.92 million pounds (11,758 mt) for 2016, 23.47 million pounds (10,645 mt) for 2017, and 21.88 million pounds (9,926 mt) for 2018. Staff recommend recreational ACLs of 7.31 million pounds (3,316 mt) for 2016, 6.62 million pounds (3,003 mt) for 2017, and 6.17 million pounds (2,800 mt) for 2018 (Table 1).

Annual Catch Targets

The Monitoring Committee is responsible for recommending Annual Catch Targets (ACTs) for the Council and Board's consideration. The ACTs may either be equal to the ACLs or reduced from the ACLs to account for management uncertainty. The Monitoring Committee should consider all relevant sources of management uncertainty in the scup fishery and provide the technical basis for any reduction in catch when recommending an ACT. Management uncertainty includes uncertainty in the ability of managers to control catch and uncertainty in quantifying the true catch (i.e. estimation errors). This can occur due to a lack of sufficient information about the catch (e.g. due to late reporting, under-reporting, and/or misreporting of landings or bycatch) or due to a lack of management precision (i.e. the ability to constrain catch to desired levels).

The 2015 benchmark stock assessment indicates that scup SSB is currently about twice SSBMSY. The commercial and recreational scup fisheries have not harvested their full quotas/harvest limits for the past four years (Table 4). For these reasons, staff recommend that the ACTs be set equal to the ACLs for 2016-2018.

Table 4: Scup commercial and recreational fishery performance relative to quotas and harvest limits, 2009-2014.

Year	Commercial Landings (mil lb)	Commercial Quota (mil lb)	Percent Overage(+)/Underage(-)	Recreational Landings (mil lb)	Recreational Harvest Limit (mil lb)	Percent Overage(+)/Underage(-)
2009	8.20	8.37	-2%	2.94	2.59	+14%
2010	10.73	10.68	0%	5.74	3.01	+91%
2011	15.03	20.36	-26%	3.66	5.74	-36%
2012	14.88	27.91	-47%	4.17	8.45	-51%
2013	17.88	23.53	-24%	5.34	7.55	-29%
2014	15.93	21.95	-27%	4.68 ^a	7.03	-37%
Average	13.78	18.80	-21%	4.35	5.73	-8%

^a MRIP estimate as of July 8, 2015.

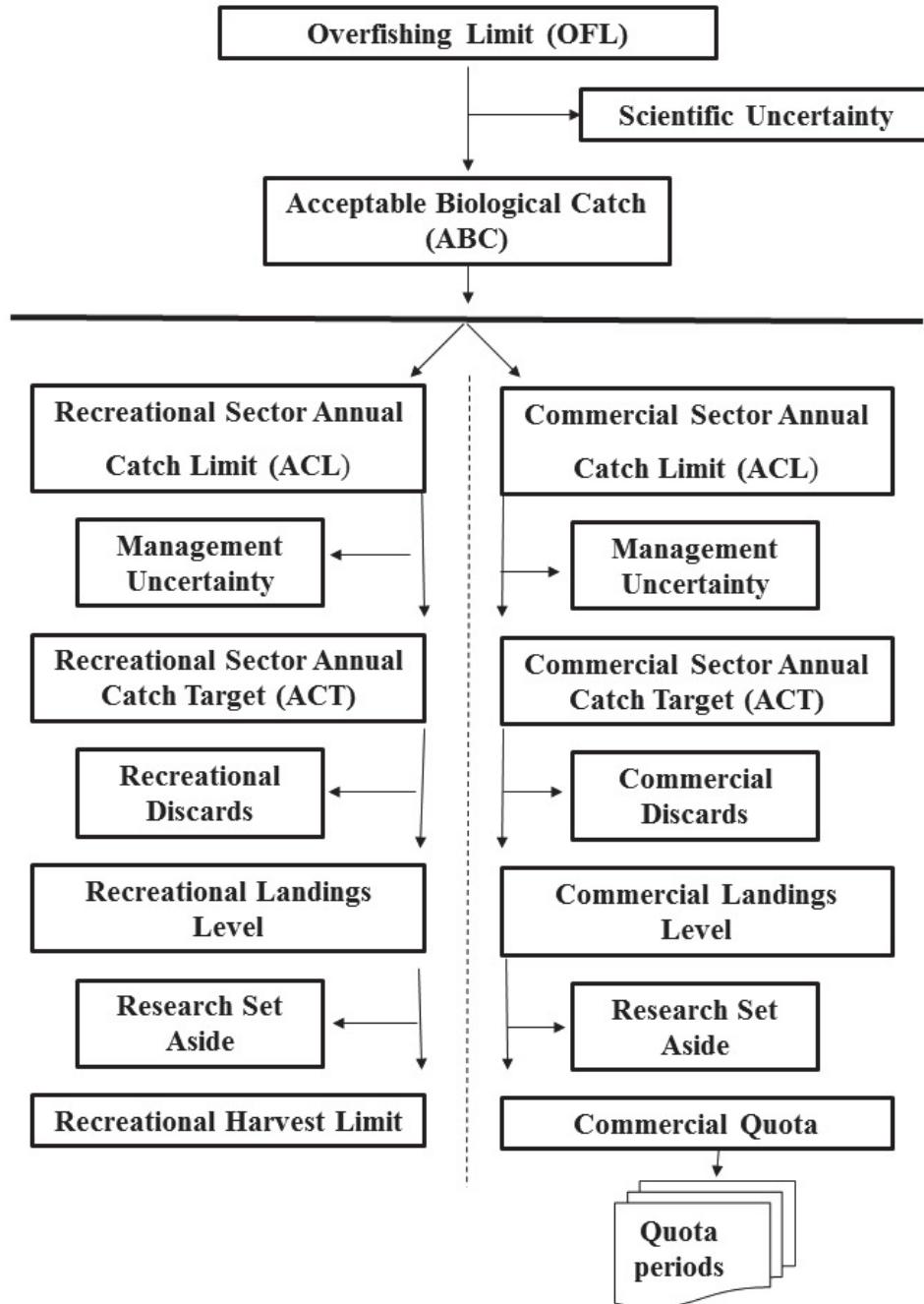


Figure 1: Illustration of how scup catch and landings limits are determined from the overfishing limit. The Research Set Aside (RSA) program was suspended in 2014; therefore, 2016 quotas will not account for a RSA deduction.

Commercial Quotas and Recreational Harvest Limit

Commercial quotas and recreational harvest limits for scup are determined by subtracting projected discards from the sector-specific ACTs. Projected discards from the stock assessment are apportioned between the recreational and commercial fisheries using the average percentage of dead discards attributable to each sector over the past three years. According to the 2015 benchmark stock assessment, commercial dead discards accounted for an average of 83.4% of all dead discards from 2012 through 2014. Recreational dead discards accounted for an average of 16.6% of all dead discards from 2012 through 2014. Based on the ABC and ACT recommendations above, after subtracting sector-specific projected discards, staff recommend a commercial quota of 21.87 million pounds (9,919 mt) in 2016, and a recreational harvest limit of 6.51 million pounds (2,951 mt) in 2016. Staff recommend a 2017 commercial quota of 19.47 million pounds (8,831 mt) and a 2017 recreational harvest limit of 5.83 million pounds (2,643 mt). Staff recommend a 2018 commercial quota of 17.96 million pounds (8,147 mt) and a 2018 recreational harvest limit of 5.39 million pounds (2,447 mt; Table 1).

In previous years, the Council has allowed for a reduction of up to 3% from the commercial and recreational landings levels for the Research Set Aside (RSA) program (Figure 1). The Council suspended the RSA program in 2014, thus staff recommend no RSA reductions in the commercial quota or recreational harvest limit for 2016-2018.

As prescribed by the FMP, the commercial scup quota is divided into three periods: Winter I (January-April; allocated 45.11% of the commercial quota), Summer (May-October; allocated 38.95% of the commercial quota), and Winter II (November-December; allocated 15.94% of the commercial quota). Based on the staff recommendations described above, the 2016 Winter I quota would be 9.86 million pounds (4,474 mt), the 2016 Summer quota would be 8.52 million pounds (3,863 mt), and the 2016 Winter II quota would be 3.49 million pounds (1,581 mt). The 2017 commercial quotas would be 8.78 million pounds (3,984 mt) for Winter I, 7.58 million pounds (3,440 mt) for Summer, and 3.10 million pounds (1,408 mt) for Winter II. The 2018 commercial quotas would be 8.10 million pounds (3,675 mt) for Winter I, 7.00 million pounds (3,173 mt) for Summer, and 2.86 million pounds (1,299 mt) for Winter II.

Commercial Possession Limits

The Council and Board use commercial scup possession limits to help constrain landings to the seasonal quotas. The Winter I possession limit has been 50,000 pounds since 2012. After 80% of the Winter I quota is landed, the possession limit drops to 1,000 pounds. Prior to 2012, the Winter I possession limit was 30,000 pounds. The Winter II possession limit has been 12,000 pounds since 2014. Prior to 2014, the Winter II possession limit was 2,000 pounds. The Winter II possession limit is an initial possession limit. If the Winter I quota is not fully harvested, the Winter II possession limit increases by 1,500 pounds for every 500,000 pounds of scup not caught during the Winter I period.

Table 5 shows a summary of the number of trips landing more than 20, 30, 40 or 50 thousand pounds of scup at a time during the Winter I periods from 2011 through 2014. This summary was calculated based on dealer data and shows that between 5 and 13 trips landed more than 30,000 pounds of scup at a time from 2011 through 2014, and that 3 or fewer trips landed 40,000 pounds or more of scup. This table was presented at the Advisory Panel meeting in June 2015. A few scup advisors thought this table was inaccurate, potentially because of the reliance on dealer data to perform the analysis. These advisors said

that commercial fishermen occasionally catch high volumes of scup and divide the catch among multiple dealers, which may have resulted in errors in the analysis of dealer data. These advisors said it is not difficult to catch the full 50,000 pound Winter I trip limit. They expressed appreciation for the recent increases in both the Winter I and Winter II trip limits, saying that although scup are a low-value species, with high trip limits and high scup abundances, fishermen can catch enough scup to make a profit, or at least cover their trip expenses. This is especially helpful during times when other fisheries are not very profitable (see the 2015 Fishery Performance Report for more insights from advisors).

Table 5: The total number of scup trips during Winter I period from 2011 through 2014, and the number of trips landing greater than 20, 30, 40, and 50 thousand pounds of scup, as shown in NMFS dealer data. C= confidential.

Year	Total Winter I trips	Number of trips landing more than:			
		20,000 lb	30,000 lb	40,000 lb	50,000 lb
2011	3,342	17	0	0	0
2012	4,753	19	5	C	0
2013	3,749	36	11	C	0
2014	3,377	29	13	3	0

Staff recommend that a thorough review of the Winter I and Winter II scup possession limits be conducted for consideration by the Council and Board at the December 2015 meeting. Pending such analysis, staff do not recommend any changes to the Winter I and Winter II possession limits at this time.

Commercial Minimum Fish Size and Trawl Mesh Size

The Council and Board have not modified the commercial minimum scup size of 9 inches total length (TL) since scup was first managed by the Council through the 1996 amendment that added scup to the Summer Flounder FMP. In 2005, and again in 2012, the Council and Board considered reducing the minimum size to 8 inches TL based on suggestions from commercial fishermen. In 2005, and again in 2012, Council staff presented a memo with data from O'Brien et al. 1993, showing that approximately 90.6% of scup are mature by 8 inches TL and approximately 98.5% of scup are mature by 9 inches TL (Coakley 2005). In 2012 the Monitoring Committee concluded that, assuming gear requirements remain constant, a reduction to 8 inches TL would not likely have a considerable impact on stock status and spawning capacity given that many 8-inch fish are already selected into the fishery as discards, and commercial discard mortality is assumed to be 100% for the trawl fishery. The Monitoring Committee did, however, express concern about the possibility of increased targeting of smaller scup and the lack of discard data from pot and trap commercial scup fisheries.⁴ For these reasons, the Council and Board decided in 2012 to maintain the 9 inch TL minimum fish size.

At the June 2015 Summer Flounder, Scup, and Black Sea Bass AP meeting, one advisor stated that the minimum scup size of 9 inches TL is redundant with the requirement that otter trawls targeting scup

⁴ About 1.3% of the total commercial scup catch in 2014 was caught with pots and traps.

have a minimum mesh size of 5 inches diamond mesh. This minimum mesh size was chosen by the Council and Board because it mostly captures scup that are about 9 inches in length or greater (Coakley 2005). This advisor thought the minimum fish size in the commercial fishery should be eliminated to allow fishermen to turn discards into landings and reduce overall mortality on scup. A few advisors said there is little market demand for smaller scup so fishermen will continue to target larger scup even if the minimum size were reduced or eliminated.

The 5 inch minimum mesh size is required for trawl vessels that catch more than 500 pounds of scup from November 1 through April 30 and more than 200 pounds of scup from May 1 through October 31.

Given that the Council and Board have not modified these measures since 2004 and the scup population has changed dramatically (i.e. abundance has increased as well as the numbers of larger, older fish) over the past ten years, staff recommend that a thorough review of these commercial management measures be conducted. The Council and the Board could consider the review at the December 2015 meeting.

Commercial Pots and Traps Escape Vents

NMFS Vessel Trip Report data show that about 1.3% of the 2014 commercial scup catch was taken with pots and traps. Pots and traps used in the commercial scup fishery must have either a circular escape vent with a 3.1 inch minimum diameter or square or rectangular escape vents with each side being at least 2.25 inches in length. The Council and Commission hosted a workshop in 2005 to review several studies on vent size. Workshop participants did not recommend any changes in the vent sizes for the commercial scup fishery.

Staff recommend that a thorough review of escape vent sizes for pots and traps used in the commercial scup fishery be conducted for consideration by the Council and the Board at the December 2015 meeting. Pending such analysis, staff do not recommend any changes to vent size requirements at this time.

Recreational seasons, possession limits, and minimum size

The Council and Board will set a recreational harvest limit for 2016 (and possibly 2017 and 2018) at their joint August 2015 meeting. The Council and Board will determine other recreational measures for 2016, such as any necessary changes to the recreational scup season, possession limits, and minimum fish sizes in December 2015. Data from the first four “waves” (i.e. the two-month reporting increments for recreational data) of 2015 recreational landings will be available in October 2015. The Monitoring Committee will meet in November to review these landings data and make recommendations for any necessary changes in recreational management measures.

References

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