Scup Advisory Panel Information Document[1]

June 2014

Management System

The Fishery Management Plan (FMP) for scup has been in place since 1996 when it was incorporated into the Summer Flounder FMP. The FMP established the management unit for scup (*Stenotomus chrysops*) as the U.S. waters in the western Atlantic Ocean from Cape Hatteras, North Carolina northward to the U.S.-Canadian border, and established measures to ensure effective management of the scup resource. There are two management entities that work cooperatively to develop fishery regulations for scup: the Atlantic States Marine Fisheries Commission (ASMFC) and the Mid-Atlantic Fishery Management Council (MAFMC), in conjunction with the National Marine Fisheries Service (NMFS) as the federal implementation and enforcement entity. The cooperative management endeavor was developed because a significant portion of the catch is taken from both state (0-3 miles offshore) and federal waters (3-200 miles offshore). The commercial and recreational fisheries are managed using catch and landings limits, commercial quotas, recreational harvest limits, minimum fish sizes, gear regulations, permit requirements, and other provisions as prescribed by the FMP. The scup stock was previously under a stock rebuilding strategy and was declared rebuilt in 2009. The FMP, including subsequent Amendments and Frameworks, is available on the Council website at: http://www.mafmc.org/sf-s-bsb/.

Basic Biology

Information on scup life history and habitat requirements can be found in the document titled, "Essential Fish Habitat Source Document: Scup, *Stenotomus chrysops*, Life History and Habitat Characteristics" (Steimle et al. 1999), and is summarized here. An electronic version is available at the following website: http://www.nefsc.noaa.gov/nefsc/habitat/efh/.

Scup is a schooling continental shelf species of the Northwest Atlantic which undertakes extensive migrations between coastal waters and offshore waters. Spawning occurs from May through August, peaking in June. Scup spawn once annually over weedy or sand-covered areas. Juvenile and adult scup are demersal, using inshore waters in the spring and moving offshore in the winter. Essential Fish Habitat (EFH) for scup includes demersal waters, sands, mud, mussel beds, and seagrass beds, from the Gulf of Maine through Cape Hatteras, North Carolina. About 50% of age-2 scup are sexually mature (at about 17 cm total length, or 7 inches), while nearly all scup of age 3 and older are mature (DPSWG 2009). Scup reach a maximum age of at least 14 years, with a likely maximum of 20 years (DPSWG 2009). Adult scup are benthic feeders and forage on a variety of prey, including small crustaceans (including zooplankton), polychaetes,

[1] Data employed in the preparation of this document are from unpublished National Marine Fisheries Service (NMFS) Dealer, Vessel Trip Reports (VTRs), Permit, and Marine Recreational Statistics (MRFSS/MRIP) databases, as of May 2014, unless otherwise noted.

mollusks, small squid, vegetable detritus, insect larvae, hydroids, sand dollars, and small fish. The Northeast Fisheries Science Center (NEFSC) food habits database lists several shark species, skates, silver hake, bluefish, summer flounder, black sea bass, weakfish, lizardfish, king mackerel, and goosefish as predators of scup.

Status of the Stock

A statistical catch at age model (age-structured assessment program; ASAP) model was used in the most recent peer-reviewed and accepted scup assessment (DPSWG 2009; Data Poor Stock Working Group (DPSWG) Peer Review Panel). Reports on "Stock Status," including annual assessment and reference point update reports, Stock Assessment Workshop (SAW) reports, Stock Assessment Review Committee (SARC) panelist reports, and DPSWG reports and peer-review panelist reports are available online at the NEFSC website: http://www.nefsc.noaa.gov/saw.

The last assessment update was completed in July 2012 (Terceiro 2012), and indicated that the scup stock was not overfished and overfishing was not occurring in 2011 relative to the biological reference points. The fishing mortality rate (F) was estimated to be 0.034 in 2011, below the fishing mortality threshold reference point (F_{MSY} = F40% = 0.177) (Figure 1). Spawning Stock Biomass (SSB) was estimated to be 190,424 metric tons (420 million lb) in 2011, above the biomass target reference point (SSB_{MSY} = $SSB_{40\%}$ = 92,044 mt, or 203 million lb). After below average recruitment in 2009 and 2010, the 2011 year class was estimated to be above average at 154 million age 0 fish (Figure 2).

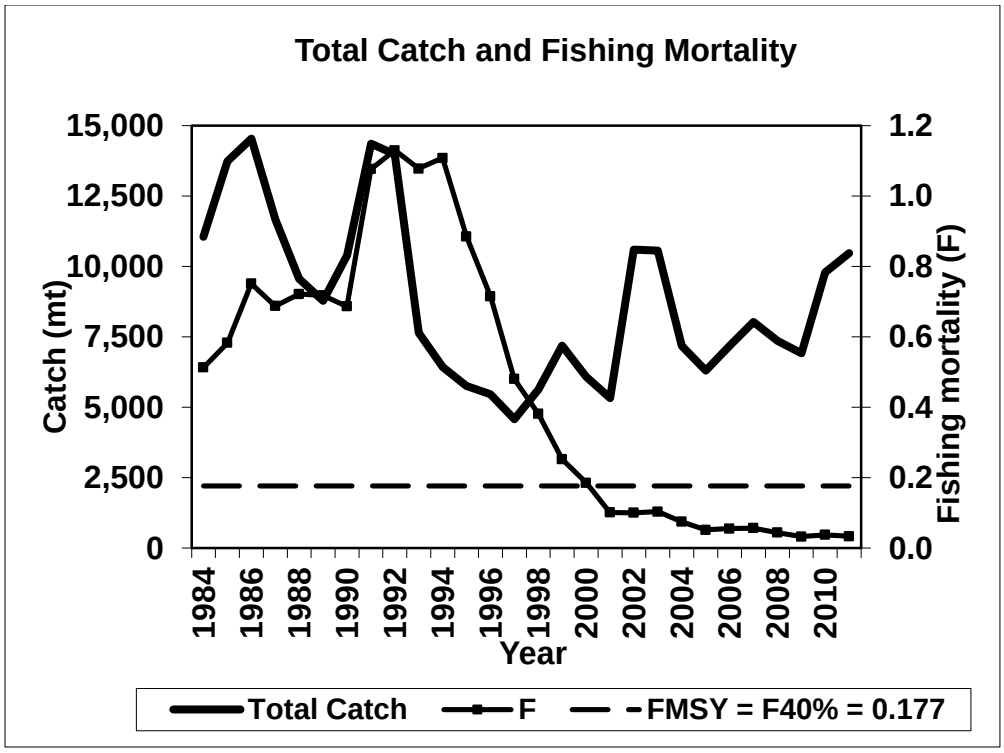

Figure 1: Total fishery catch and fishing mortality rate for scup. $F_{40\%}$ is the proxy for F_{MSY}. Source: Terceiro 2012.

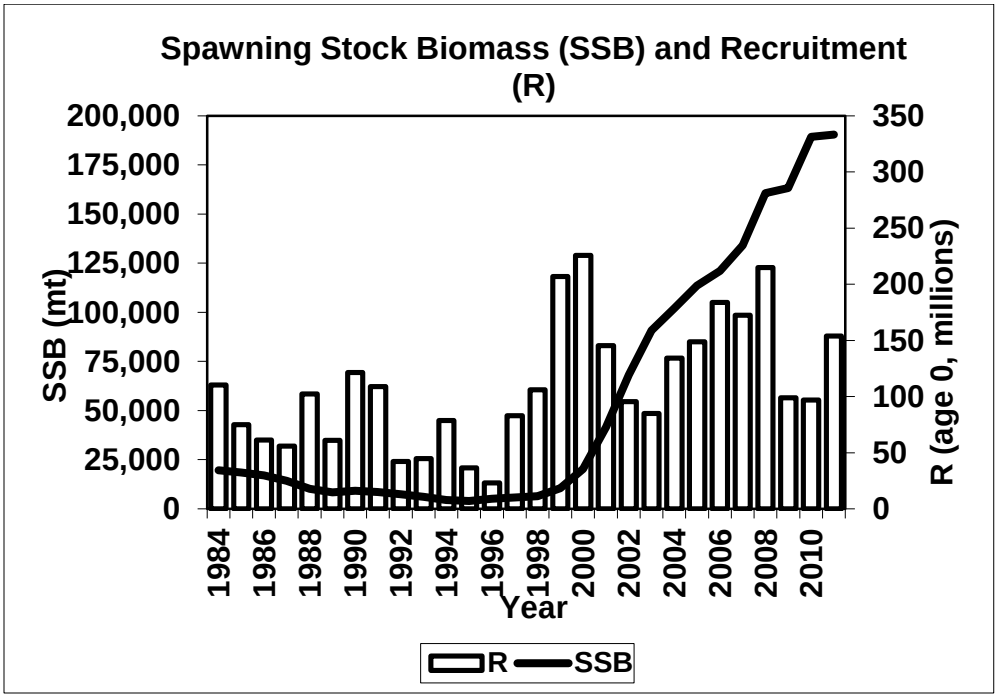

Figure 2: Spawning stock biomass (SSB) and Recruitment (R, age 0) by calendar year. Source: Terceiro 2012.

Fishery Performance

There are significant commercial and recreational fisheries for scup. Scup is managed primarily using output controls (catch and landings limits), with 78 percent of the landings being allocated to the commercial fishery as a commercial quota and 22 percent of landings allocated to the recreational fishery as a recreational harvest limit. The commercial quota is divided into three periods: Winter I (January-April; 45.11 percent), Summer (May-October; 38.95 percent), and Winter II (November-December; 15.94 percent).

Table 1 summarizes the scup management measures for the 2004-2015 fishing years. Acceptable biological catch (ABC) levels have been identified for this stock since 2010, and recreational and commercial annual catch limits (ACLs), with a system of overage accountability for each ACL, were first implemented in 2012. It should be noted that catch limits include both projected landings and discards, whereas the commercial quotas and recreational harvest limits are landings based (i.e., harvest).

Total (commercial and recreational) landings peaked in 1981 at over 27 million lb, and in 2013 were about 23 million lb total (Figure 3).

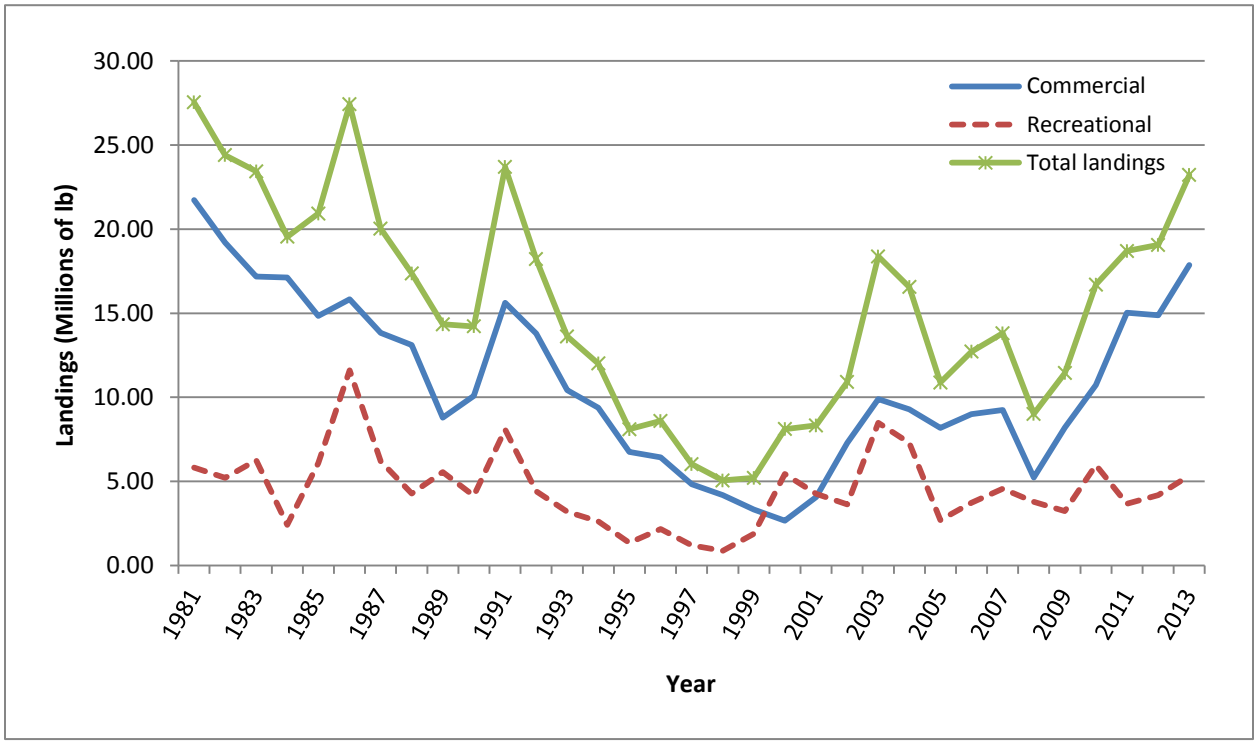

Figure 3: Commercial and Recreational U.S. Scup Landings (millions of pounds) from Maine to North Carolina, 1981-2013.

Table 1: Summary of scup management measures and landings for 2004 through 2015.

Management measures	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015[a]
ABC (m lb)	NA	NA	NA	NA	NA	11.70	17.09	51.70	40.88	38.71	35.99	33.77
TAC (m lb)	18.65	18.65	19.79	13.97	9.90	15.54[b]	17.09	31.92	40.88	38.71	35.99	33.77
Commercial ACL	NA	NA	NA	NA	NA	NA	NA	NA	31.89	30.19	28.07	26.34
Com. quota–adjusted (m lb)[c]	12.34	12.23	11.93	8.90	5.24	8.37	10.68	20.36	27.91	23.53	21.95	20.60
Commercial landings	9.28	8.18	9.00	9.24	5.22	8.20	10.73	15.03	14.88	17.87	NA	NA
Recreational ACL	NA	NA	NA	NA	NA	NA	NA	NA	8.99	8.52	7.92	7.43
Rec. harvest limit-adjusted (m lb)[c]	4.01	3.96	4.15	2.74	1.83	2.59	3.01	5.74	8.45	7.55	7.03	6.60
Recreational landings	4.24	2.54	2.93	3.65	4.04	3.23	5.97	3.67	4.17	5.34	NA	NA
Com. fish size (in)	9	9	9	9	9	9	9	9	9	9	9	9
Com. min. mesh size (in, diamond)	4.5/5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Threshold (lb)	500/100	500/200	500/ 200	500/ 200	500/ 200	500/ 200	500/ 200	500/200	500/200	500/200	500/200	500/200
Recreational measures (minimum fish size (total length), possession limit, and open season)	10-in TL, 50 fish, 1/1-2/28 and 9/7 - 11/30	10-in TL, 50 fish, 1/1-2/28 and 9/18 - 1/30	10-in TL, 50 fish, 1/1-2/28 and 9/18-11/30	10-in TL, 50 fish, 1/1-2/28 and 9/18-11/30	10.5-in TL, 15 fish, 1/1-2/28 and 10/1-10/31	10.5-in TL, 15 fish, 1/1-2/28 and 10/1-10/31	10.5-in TL, 10 fish, 6/6 - 9/26	10.5-in TL, 10 fish, 6/6 - 9/26	10.5-in TL, 15 fish, 5/19-10/14 and 11/1-12/31	10-in TL, 30 fish, 1/1-12/31	9-inch TL, 30 fish, 1/1-12/31	NA

[a]These reflect the regulations currently set for scup in 2015, however, the Council and ASFMC will review these catch limits and management measures in August 2014 and may revise as necessary. [b]In 2009, the SSC recommend an ABC of 11.70 million lb. Based on the Data Poor Stocks Workgroup Panel Report, which was not available to the SSC at the time the recommendation was made, NMFS increased the TAC to 15.54 million lb. [c]Adjusted for RSA and projected discards. NA=Not applicable or not yet available.

Commercial Fishery

In Federal waters, commercial fishermen holding a moratorium permit may fish for scup. Permit data indicate that 697 vessels held commercial permits for scup in 2013.

NMFS statistical areas are shown in Figure 4, with areas that accounted for more than 5 percent of the scup catch in 2013 highlighted. Vessel trip report (VTR) data suggest that statistical area 537 was responsible for the largest percentage of the catch in 2013, with statistical area 611having the majority of trips that caught scup (Table 2).

Table 2: Statistical areas that accounted for at least 5 percent of the scup catch in 2013, with associated number of trips. Source: NMFS VTR data.

Statistical Area	Scup Catch (percent)	Scup Trips (N)
537	27.67	1009
616	16.17	346
539	13.20	1588
611	12.80	1633
613	10.10	1023
615	5.12	96

Based on VTR data for 2013, the bulk of scup landings were taken by bottom otter trawls (97 percent), followed by pots and traps (~1.3 percent). Other gear types each accounted for less than 1 percent of landings. Current commercial regulations for scup require a 9 inch-TL minimum fish size in the commercial fishery, and the following gear requirements for otter trawls: minimum mesh size of 5 inch for the first 75 meshes from the terminus of the net, and for codends constructed with fewer than 75 meshes, a minimum mesh size of 5 inch throughout the net. The threshold level used to trigger the minimum mesh requirements is 500 lbs of scup from November 1 through April 30 and 200 lb or more of scup from May 1 through October 31 (Table 1). In addition, the current regulations require a circular escape vent of 3.1 inch, a square escape vent of 2.25 inch, or a rectangular escape vent of an equivalent size.

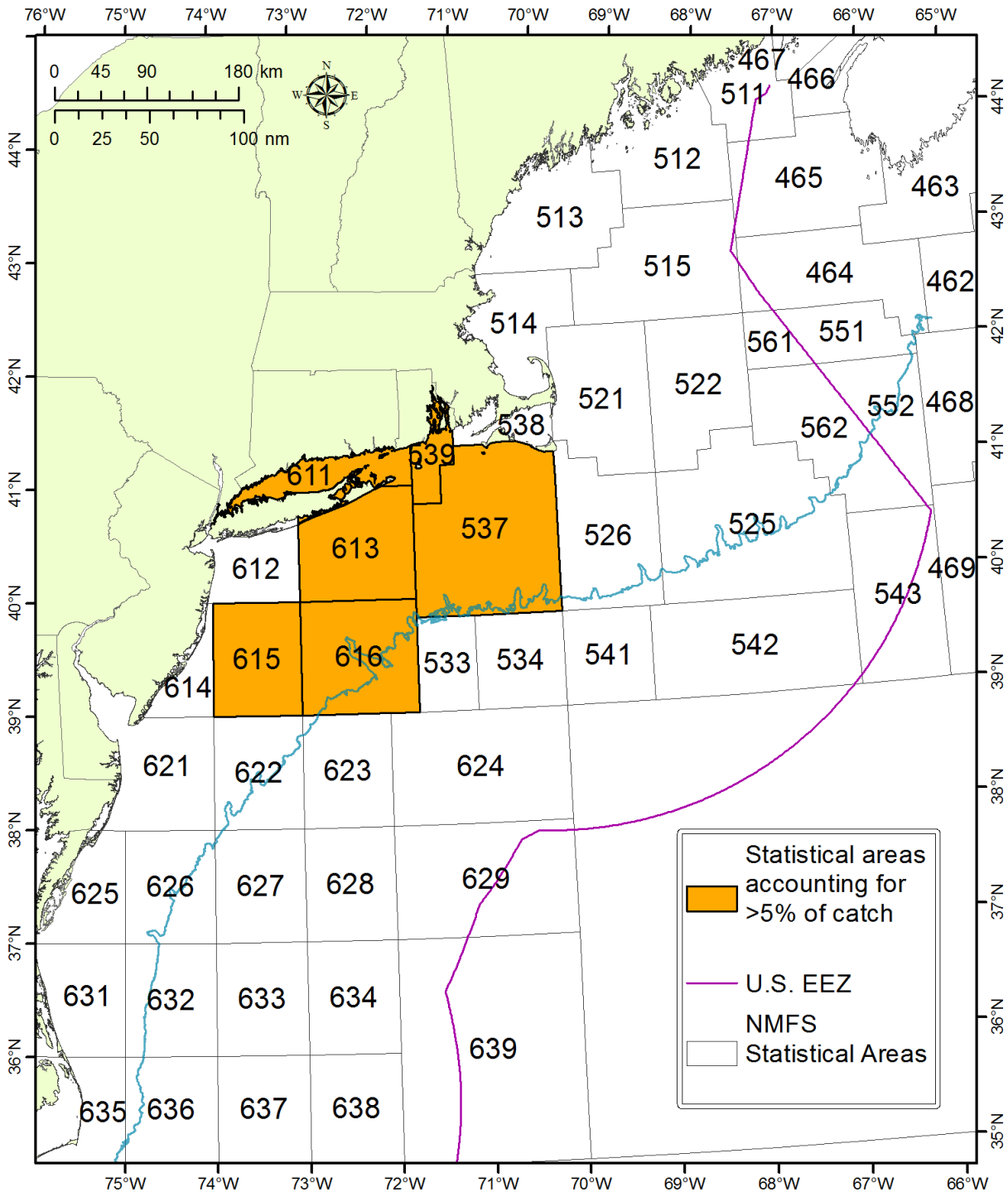

Figure 4: National Marine Fisheries Service Statistical Areas, showing statistical areas accounting for more than 5% of the commercial scup catch in 2013.

Gear restricted areas (GRAs) were implemented by NMFS in 2000 to reduce discards of scup in small mesh fisheries, and became effective on November 1, 2000 for the northern area with an exemption for the herring fishery. The GRAs were modified in size in December 2000 to include areas farther south that were identified as areas of potential scup and *Loligo* interactions. Mackerel and herring small mesh fisheries were exempt from the regulations. In 2005, based on recommendations from the Monitoring Committee, the boundary of the southern GRA was moved 3 longitudinal minutes to the west. A Framework Adjustment to the FMP was initiated in 2013 to analyze additional potential modifications to the boundaries of the GRAs, in particular the eastern boundary of the southern GRA. As of June 2014, the Council has not yet taken action on this Framework.

The Winter I possession limit for 2013 is 50,000 lb, until 80 percent of the landings are reached, at which point the possession limit drops to 1,000 lb. In 2014, the Winter II possession limit has been increased to 12,000 lb (from the previous 2,000 lb limit). This is an initial possession limit, which increases if a transfer of quota occurs between Winter I and Winter II. In that case, the Winter II possession limit should increase at 1,500 lb intervals for every 500,000 lb of scup transferred, i.e., if 1.0 million lb is transferred then the limit would be increased by 3,000 lb to result in a 15,000 lb possession limit. The possession limits were chosen as an appropriate balance between the economic concerns of the industry (i.e., landing enough scup to make the trip economically viable) and the need to ensure the equitable distribution of the quota over the period.

The 50,000 lb possession limit for Winter I was first put in place in 2012, representing an increase from the 2011 Winter I possession limit of 30,000 lb. A threshold analysis was conducted to examine how the change in possession limit may change the landings patterns for the winter periods. These data indicate that since the implementation of the increased Winter I trip limit in 2012, there has been a moderate, steady increase in the number of trips and the number of associated pounds landed above the 30,000 lb threshold (Table 3).

Table 3: The total number of vessels, trips, and associated pounds for a given threshold (pounds) of scup for 2011-2014, Winter I and II. Note: 2014 data are preliminary. C = Confidential.

Time Period	Threshold	Vessels	%	Trips	%	Pounds	%
2011 Winter I (Jan-Apr)	>=1	207	100%	3,342	100%	5,807,280	100%
	>=500	128	62%	1,573	47%	5,590,146	96%
	>=5000	82	40%	337	10%	3,198,479	55%
	>=10000	54	26%	115	3%	1,665,417	29%
	>=15000	30	14%	38	1%	750,052	13%
	>=20000	14	7%	17	1%	391,898	7%
	>=25000	4	2%	4	0%	106,350	2%
	>=30000	0	0%	0	0%	0	0%
Time Period	**Threshold**	**Vessels**	**%**	**Trips**	**%**	**Pounds**	**%**
2012 Winter I (Jan-Apr)	>=1	216	100%	4,753	100%	5,411,994	100%
	>=500	111	51%	1,815	38%	5,077,379	94%
	>=5000	58	27%	237	5%	2,423,926	45%
	>=10000	34	16%	75	2%	1,319,872	24%
	>=15000	19	9%	41	1%	915,408	17%
	>=20000	11	5%	19	0%	536,305	10%
	>=25000	8	4%	10	0%	331,895	6%
	>=30000	4	2%	5	0%	195,540	4%
	>=50000	0	0%	0	0%	0	0%
Time Period	**Threshold**	**Vessels**	**%**	**Trips**	**%**	**Pounds**	**%**
2013 Winter I (Jan-Apr)	>=1	213	100%	3,749	100%	7,431,296	100%
	>=500	136	64%	1,928	51%	7,215,496	97%
	>=5000	77	36%	424	11%	4,402,159	59%
	>=10000	46	22%	151	4%	2,501,705	34%
	>=15000	26	12%	63	2%	1,437,985	19%
	>=20000	19	9%	36	1%	969,098	13%
	>=25000	12	6%	17	0%	548,563	7%
	>=30000	8	4%	11	0%	387,270	5%
	>=50000	0	0%	0	0%	0	0%
Time Period	**Threshold**	**Vessels**	**%**	**Trips**	**%**	**Pounds**	**%**
2014 Winter I (Jan-Apr)	>=1	187	100%	3,377	100%	6,078,832	100%
	>=500	120	64%	1,571	47%	5,859,320	96%
	>=5000	61	33%	330	10%	3,660,036	60%
	>=10000	38	20%	135	4%	2,274,762	37%
	>=15000	23	12%	57	2%	1,330,754	22%
	>=20000	12	6%	29	1%	844,335	14%
	>=25000	7	4%	18	1%	598,488	10%
	>=30000	5	3%	14	0%	489,867	8%
	>=50000	0	0%	0	0%	0	0%

Table 3, Continued:

Period	Threshold	Vessels	%	Trips	%	Pounds	%
2011 Winter II (Nov-Dec)	>=1	181	100%	3,259	100%	2,638,811	100%
	>=500	90	50%	1,183	36%	2,416,371	92%
	>=5000	39	21%	91	3%	614,747	23%
	>=10000	c	c	c	c	c	c
	>=15000	c	c	c	c	c	c
	>=20000	0	0%	0	0%	0	0%
	>=25000	0	0%	0	0%	0	0%
	>=30000	0	0%	0	0%	0	0%
Period	**Threshold**	**Vessels**	**%**	**Trips**	**%**	**Pounds**	**%**
2012 Winter II (Nov-Dec)	>=1	178	100%	3,112	100%	2,690,856	100%
	>=500	117	66%	1,302	42%	2,466,015	92%
	>=5000	35	20%	67	2%	447,986	17%
	>=10000	c	c	c	c	c	c
	>=15000	c	c	c	c	c	c
	>=20000	0	0%	0	0%	0	0%
	>=25000	0	0%	0	0%	0	0%
	>=30000	0	0%	0	0%	0	0%
	>=50000	0	0%	0	0%	0	0%
Period	**Threshold**	**Vessels**	**%**	**Trips**	**%**	**Pounds**	**%**
2013 Winter II (Nov-Dec)	>=1	215	100%	3,020	100%	2,212,846	100%
	>=500	112	52%	1,073	36%	1,980,172	89%
	>=5000	24	11%	45	1%	294,092	13%
	>=10000	c	c	c	c	c	c
	>=15000	c	c	c	c	c	c
	>=20000	c	c	c	c	c	c
	>=25000	0	0%	0	0%	0	0%
	>=30000	0	0%	0	0%	0	0%
	>=50000	0	0%	0	0%	0	0%

Scup ex-vessel revenues based on dealer data have ranged from $3.3 to $10.4 million for the 1994 through 2013 period. The mean price for scup (unadjusted) has ranged from a low of $0.55/lb in 2011 and 2013 to a high of $1.46/lb in 1998 (Figure 5), with a strong price-volume relationship exhibited in the time series. In 2013, 17.87 million pounds of scup were landed generating $9.79 million in revenues ($0.55/lb).

When examining the landings and prices by period for 2007-2013, the period associated with the highest price per pound has varied year to year (Table 4). As landings have increased, price has generally decreased.

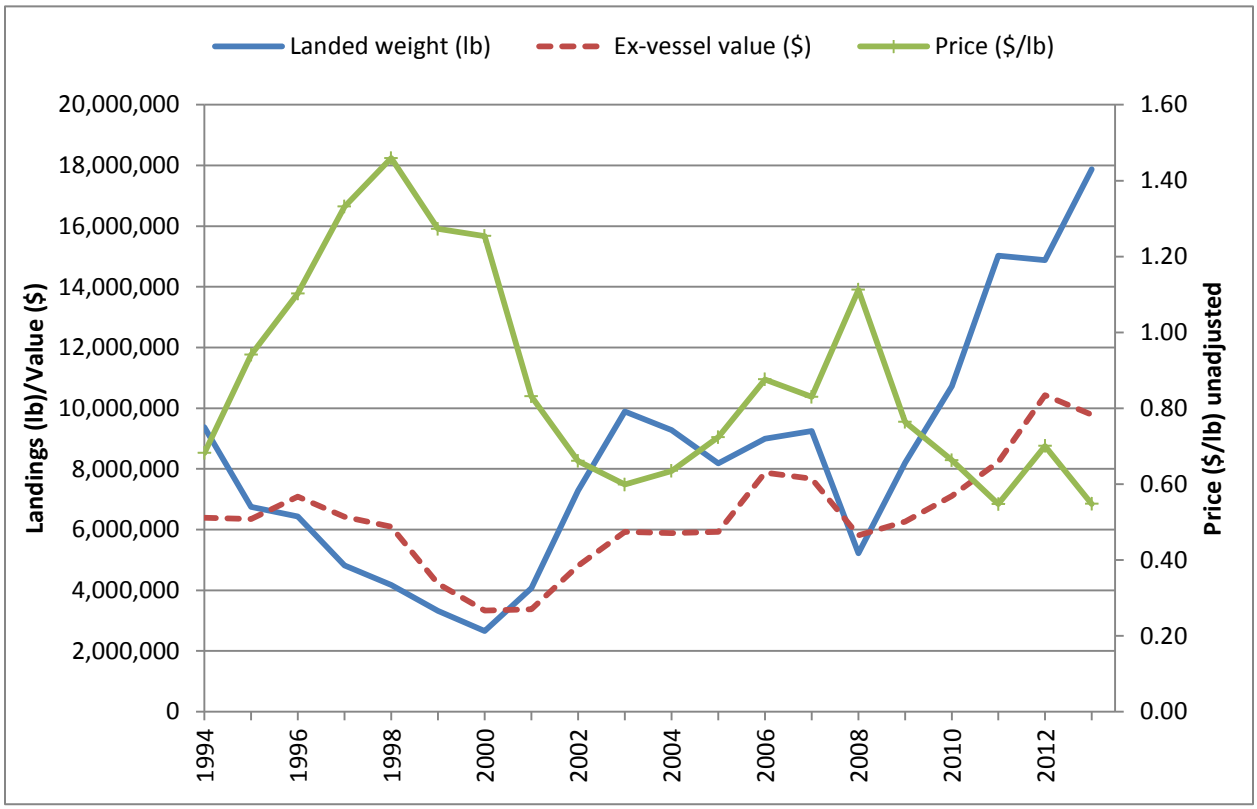

Figure 5: Landings, ex-vessel value, and price (unadjusted) for scup, Maine through North Carolina, 1994-2013.

Table 4: Commercial scup landings, ex-vessel value, and nominal price, by period, 2007-2013.

Year	Period	Landings (lbs)	Nominal Value ($)	Nominal Price Mean ($/lb)
2007	**Winter I**	3,397,362	3,098,131	0.91
	Summer	4,254,208	3,410,682	0.80
	Winter II	1,593,017	1,165,044	0.73
	Total	**9,244,587**	**7,673,857**	**0.83**
2008	**Winter I**	2,397,279	2,300,240	0.96
	Summer	1,933,203	2,773,152	1.43
	Winter II	894,139	736,733	0.82
	Total	**5,224,621**	**5,810,125**	**1.11**
2009	**Winter I**	3,774,583	2,505,230	0.66
	Summer	3,072,571	2,876,455	0.94
	Winter II	1,356,796	884,752	0.65
	Total	**8,203,950**	**6,266,437**	**0.76**
2010	**Winter I**	4,876,682	2,574,698	0.53
	Summer	4,307,065	3,336,595	0.77
	Winter II	1,543,934	1,201,374	0.78
	Total	**10,727,681**	**7,112,667**	**0.66**
2011	**Winter I**	5,807,280	2,775,814	0.48
	Summer	6,586,374	3,911,973	0.59
	Winter II	2,638,811	1,543,157	0.58
	Total	**15,032,465**	**8,230,944**	**0.55**
2012	**Winter I**	5,411,994	4,128,690	0.76
	Summer	6,781,245	4,807,675	0.71
	Winter II	2,690,856	1,492,612	0.55
	Total	**14,884,095**	**10,428,977**	**0.70**
2013	**Winter I**	7,431,296	3,871,666	0.52
	Summer	8,229,884	4,448,851	0.54
	Winter II	2,211,107	1,471,450	0.67
	Total	**17,872,287**	**9,791,967**	**0.55**

2013 NMFS dealer data were used to examine recent landings patterns among ports. The top commercial landings ports for scup by pounds landed are shown in Table 5. A "top port" is defined as any port that landed at least 100,000 lb of scup. Related data for the recreational fisheries are shown in subsequent sections. However, due to the nature of the recreational database, it is inappropriate to desegregate to less than state levels. The ports and communities that are dependent on scup are fully described in Amendment 13 to the FMP. Additional information on "Community Profiles for the Northeast US Fisheries" can be found at: http://www.nefsc.noaa.gov/read/socialsci/community_profiles/.

Table 5: Top ports of landing (in lb) for scup, based on NMFS 2013 dealer data. Since this table includes only the "top ports," it may not include all of the landings for the year. Note: C = Confidential.

Port	Landings of Scup (lb)	# of Vessels
POINT JUDITH, RI	6,190,480	127
MONTAUK, NY	3,376,814	92
CAPE MAY, NJ	905,278	32
PT. PLEASANT, NJ	821,582	36
NEW BEDFORD, MA	780,691	51
HAMPTON, VA	610,038	31
HAMPTON BAY, NY	477,536	34
NEW LONDON, CT	474,006	9
LITTLE COMPTON, RI	454,149	19
STONINGTON, CT	442,559	19
MATTITUCK, NY	328,709	4
OCEAN CITY, MD	315,374	9
BELFORD, NJ	294,841	15
NEWPORT, RI	273,570	11
FALL RIVER, MA	C	C
CHINCOTEAGUE, VA	205,945	18
NEWPORT NEWS, VA	168,720	24
EAST LYME, CT	C	C
EAST HAVEN, CT	125,082	6
TIVERTON, RI	117,331	4
AMMAGANSETT, NY	113,963	5

Among the states from Maine through North Carolina, New York had the highest number of Federally permitted dealers (46) who bought scup in 2013 (Table 6). All dealers bought approximately $9.79 million of scup in 2013.

Table 6: Dealers reporting buying scup, by state in 2013. Note: C = Confidential.

Number of Dealers	NH	MA	RI	CT	NY	NJ	DE	MD	VA	NC
	C	35	41	17	46	21	C	C	11	13

Recreational Fishery

There is a significant recreational fishery for scup in state waters, which occurs seasonally when the fish migrate inshore during the warm summer months. In Federal waters, the recreational scup fishery is managed on a coastwide basis. However, the ASMFC applies a regional management approach, where the four northern states (New York through Massachusetts) developed regulations intended to land 97 percent of the allocation. The 2014 recreational fishing measures in Federal waters are given in Table 1, and the 2014 state-specific measures are given in Table 7.

Recreational data have been available through the Marine Recreational Information Program (MRIP) since 2004, and prior to 2004 were available through the Marine Recreational Fishery Statistics Survey (MRFSS). Recreational catch and landings of scup peaked in 1986 with landings in numbers and weight at the lowest levels in 1998 (Table 8). When anglers are intercepted through the surveys conducted for the recreational statistics programs, they are asked about where the majority of their fish were caught (i.e., inland, state waters (<=3 miles), exclusive economic zone (EEZ; > 3 miles)). While these data are somewhat imprecise, they do provide a general indication of where the majority of scup are landed recreationally. On average, 97% of scup have been landed in state waters since 2004 (Table 9).

Table 7: Scup recreational fishing measures in state waters for 2014, by state.

State	Minimum Size (inches)	Possession Limit	Open Season
Massachusetts	10	30 fish	May 1- December 31
MA (For-hire only)	10	45 fish	May 1 - June 30
		30 fish	July 1 - December 31
Rhode Island (Private and 4 Designated Shore Sites)	10	30 fish	May 1- December 31
RI (Party/Charter)	10	30 fish	May 1- August 31; November 1-December 31
		45 fish	September 1-October 31
Connecticut	10.5	20 fish	May 1- December 31
CT Shore Program (45 designated shore sites)	9		
New York	10	30 fish	May 1- December 31
NY (Anglers aboard licensed party/charter boats)	10	30 fish	May 1- August 31; 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

Table 8: Recreational scup landings data from the NMFS recreational statistics databases, 1981-2013.

Year	Catch ('000 of fish)	Landings ('000 of fish)	Landings ('000 lb)
1981	10,376	9,084	5,812
1982	7,181	6,454	5,205
1983	10,155	8,837	6,252
1984	7,775	6,057	2,416
1985	13,861	10,810	6,093
1986	30,872	24,823	11,605
1987	12,377	9,916	6,197
1988	7,539	6,062	4,267
1989	11,394	9,176	5,557
1990	10,172	8,043	4,140
1991	16,852	13,279	8,087
1992	10,077	7,764	4,412
1993	7,076	5,663	3,197
1994	5,650	4,270	2,628
1995	3,767	2,419	1,344
1996	4,676	2,972	2,156
1997	3,070	1,916	1,198
1998	2,670	1,211	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	7,038	2,589	2,693
2006	9,615	3,434	3,716
2007	10,051	4,748	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	3,668	4,172
2013	10,037	4,958	5,344

Table 9: Percentage of scup recreational landings (MRIP Type A+B1 in number of fish) by year and area, Maine through North Carolina, 2004-2013. Area information is self-reported based on the area where the majority of fishing activity occurred per angler trip.

Year	State <= 3 mi	EEZ > 3 mi
2004	94.8%	5.2%
2005	98.2%	1.8%
2006	93.6%	6.4%
2007	98.3%	1.7%
2008	96.2%	3.8%
2009	98.1%	1.9%
2010	95.8%	4.2%
2011	96.4%	3.6%
2012	99.5%	0.5%
2013	95.3%	4.7%
Avg. 2004-2013	96.6%	3.4%
Avg. 2011- 2013	97.1%	2.9%

Table 10: State contribution (as a percentage) to total recreational landings of scup (MRIP Type A+B1 in number of fish) from Maine through North Carolina, 2011 and 2012.

State	2012	2013
Maine	0.0%	0.0%
New Hampshire	0.0%	0.0%
Massachusetts	43.3%	42.0%
Rhode Island	13.6%	16.8%
Connecticut	23.7%	18.4%
New York	16.1%	19.8%
New Jersey	3.3%	2.9%
Delaware	0.0%	0.0%
Maryland	0.0%	0.0%
Virginia	0.0%	0.0%
North Carolina	0.0%	0.0%
Total	**100%**	**100%**

In 2013, there were 718 recreational vessels (i.e., party and charter vessels) that held scup Federal recreational permits. Many of these vessels also hold recreational permits for summer flounder and black sea bass. Landings by mode indicate that private/rental fishermen are responsible for the majority of scup landings (Table 11).

Table 11: The number of scup landed from Maine through North Carolina by mode, 1981-2013.

Year	Shore	Party/Charter	Private/Rental
1981	772,162	1,054,555	7,256,991
1982	833,427	1,393,723	4,226,957
1983	2,227,113	2,996,660	3,612,789
1984	1,299,566	227,734	4,530,010
1985	1,121,593	325,846	9,362,609
1986	1,898,860	3,228,151	19,696,031
1987	522,310	583,977	8,809,700
1988	698,339	1,137,625	4,226,344
1989	882,602	1,033,317	7,260,511
1990	434,743	1,302,788	6,305,462
1991	1,625,127	2,250,043	9,403,919
1992	1,003,648	1,017,368	5,743,161
1993	284,525	1,762,457	3,616,036
1994	229,924	918,217	3,122,099
1995	222,397	837,391	1,359,243
1996	120,597	451,613	2,399,997
1997	141,367	453,069	1,321,999
1998	117,056	164,931	929,148
1999	197,876	821,995	2,230,779
2000	550,951	1,140,133	5,552,865
2001	766,084	768,894	3,563,842
2002	505,079	1,309,167	1,832,595
2003	858,699	1,329,588	7,264,026
2004	776,634	1,508,921	4,867,979
2005	394,888	165,759	2,028,783
2006	321,081	605,953	2,507,105
2007	352,618	516,174	3,879,033
2008	385,583	868,772	2,232,587
2009	209,882	1,122,189	1,801,986
2010	383,464	1,280,207	3,484,600
2011	302,056	470,571	2,283,585
2012	266,228	1,146,896	2,255,366
2013	917,609	1,631,073	2,409,292
% of Total, 1981-2013	10%	17%	73%
% of Total, 2009-2013	10%	28%	61%

The NMFS angler expenditure survey summarizes a variety of costs associated with recreational fishing in the Northeast (Table 12). In addition, Steinback et al., 2009 summarized the reasons for fishing, with a majority of anglers (about 85 percent) fishing either mostly or fully for recreational purposes (Table 13).

Table 12: Average daily trip expenditures by recreational fishermen in the Northeast region by mode, in 2011. Source: Lovell et al. 2013.

Expenditures	$		
	Party/Charter	Private/Rental	Shore
Auto Fuel	24.92	13.50	13.25
Auto Rental	0.43	0.00	0.09
Bait	0.47	4.98	5.09
Boat Rental	0.52	18.40	0.00
Charter Fees	113.44	0.05	0.00
Crew Tips	9.95	0.00	0.00
Fish Processing	0.01	0.00	0.00
Food from Grocery Stores	12.09	6.11	6.22
Food from Restaurants	11.25	2.28	4.07
Gifts & Souvenirs	3.57	0.03	0.57
Ice	0.56	1.04	0.57
Lodging	17.42	1.35	7.69
Parking & Site Access	0.67	0.82	1.27
Public Transportation	1.56	0.05	0.15
Tournament Fees	3.77	0.00	0.00
Total	**200.63**	**48.62**	**38.96**

Table 13: Purpose of Marine Recreational Fishing in the Northeast. Source: Steinback et al., 2009.

	Percent	Number of anglers in 2005 (thousands)
All for food or income	2.1	92.4
Mostly for food or income	<1.0	34.3
Both for recreation and for food or income	11.7	514.8
Mostly for recreation	13.2	580.8
All for recreation	72.2	3,176.8

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