



## Scup Fishery Information Document

June 2021

This Fishery Information Document provides a brief overview of the biology, stock condition, management system, and fishery performance for scup (*Stenotomus chrysops*) with an emphasis on 2020 (note that there are caveats associated with 2020 data due to COVID-19 related data gaps). Data Sources for Fishery Information Documents are generally from unpublished National Marine Fisheries Service (NMFS) dealer, vessel trip report (VTR), permit, and Marine Recreational Information Program (MRIP) databases and should be considered preliminary. For more resources on scup management, including previous Fishery Information Documents, please visit <http://www.mafmc.org/sf-s-bsb/>.

### Key Facts:

- An operational assessment using data through 2018 indicated that the scup stock was not overfished, and overfishing was not occurring in 2018. An updated management track assessment will undergo peer review in July 2021.
- Commercial landings decreased by about 0.20 mil lb from 13.78 mil lb in 2019 to 13.58 mil lb in 2020.
- Price per pound and total ex-vessel value remained similar to 2019 and were \$0.68 and \$9.3 million in 2020.
- Recreational data collection was limited in 2020 by COVID-19. MRIP released 2020 estimates derived using imputation methods incorporating data from 2018 and 2019.
- Recreational landings decreased by about 1.2 mil lb from 14.12 mil lb in 2019 to 12.91 mil lb in 2020. The majority of scup harvested recreationally in 2020 was caught by private vessels (62%) and anglers fishing from shore (28%).

### Basic Biology

Scup are a schooling, demersal (i.e., bottom-dwelling) species. They are found in a variety of habitats in the Mid-Atlantic. Scup essential fish habitat 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. They are found in estuaries and coastal waters during the spring and summer. In the fall and winter, they move offshore and to the south, to outer continental shelf waters south off New Jersey. Scup spawn once annually over weedy or sandy areas, mostly off southern New England. Spawning takes place from May through August and usually peaks in June and July.<sup>1</sup>

About 50% of scup are sexually mature at two years of age and about 17 cm (about 7 inches) 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 7 years are caught in the Mid-Atlantic.<sup>2,3</sup>

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’s (NEFSC’s) 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 monkfish.<sup>1</sup>

**Status of the Stock**

The information below is based on the most recent stock assessment information available when this document was written. Updated stock assessment information will be available in July 2021.

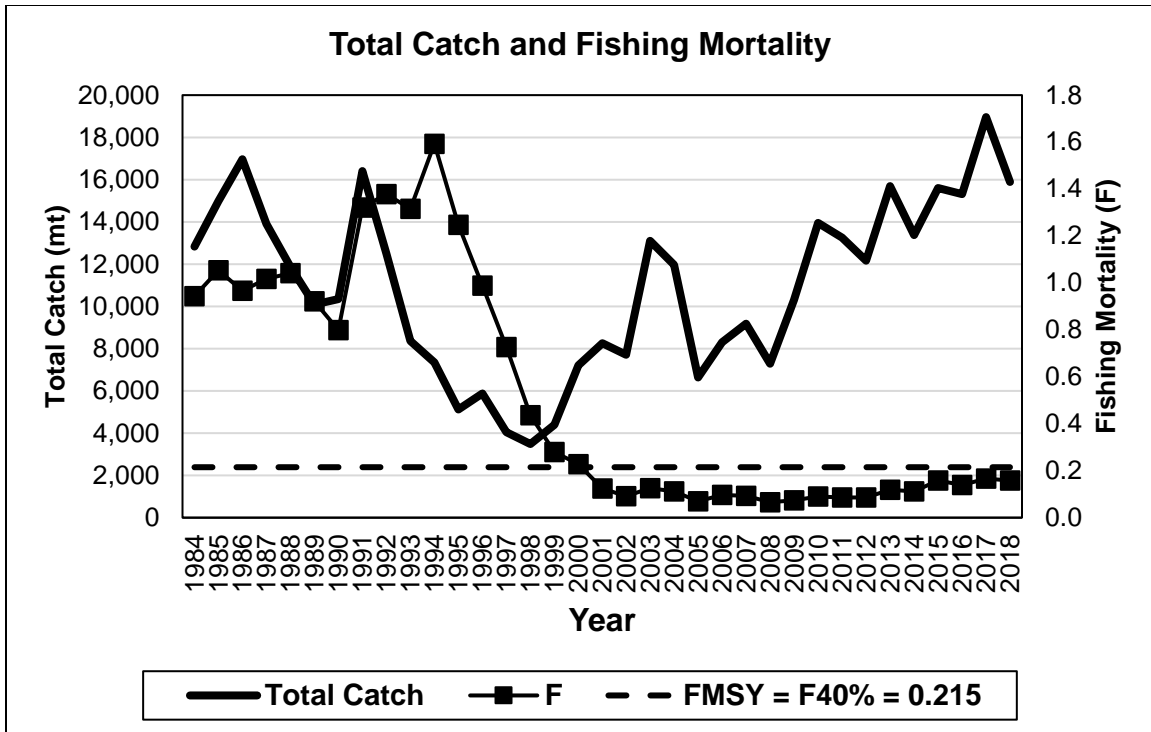
Scup underwent an operational assessment in 2019 which indicated that the stock was not overfished and overfishing was not occurring in 2018 (Figures 1 and 2). Spawning stock biomass (SSB) was estimated to be about 411 million pounds in 2018, about 2 times the target level (i.e. SSB<sub>40%</sub>) of 207 million pounds (Figure 2).<sup>3,4</sup>

Fishing mortality on fully selected age 3 scup was 0.158 in 2018, about 73% of the F<sub>MSY</sub> proxy reference point (F<sub>40%</sub>) of 0.215, which means that overfishing was not occurring in 2018. The 2015 year class (i.e., the scup spawned in 2015) is estimated to be the largest in the time series at 326 million fish, while the 2016-2018 year classes are estimated to be below average at 112 million fish, 93 million fish and 83 million fish, respectively (Figure 2).<sup>4</sup> The biological reference points for scup as revised through the 2019 operational assessment are described in Table 1.

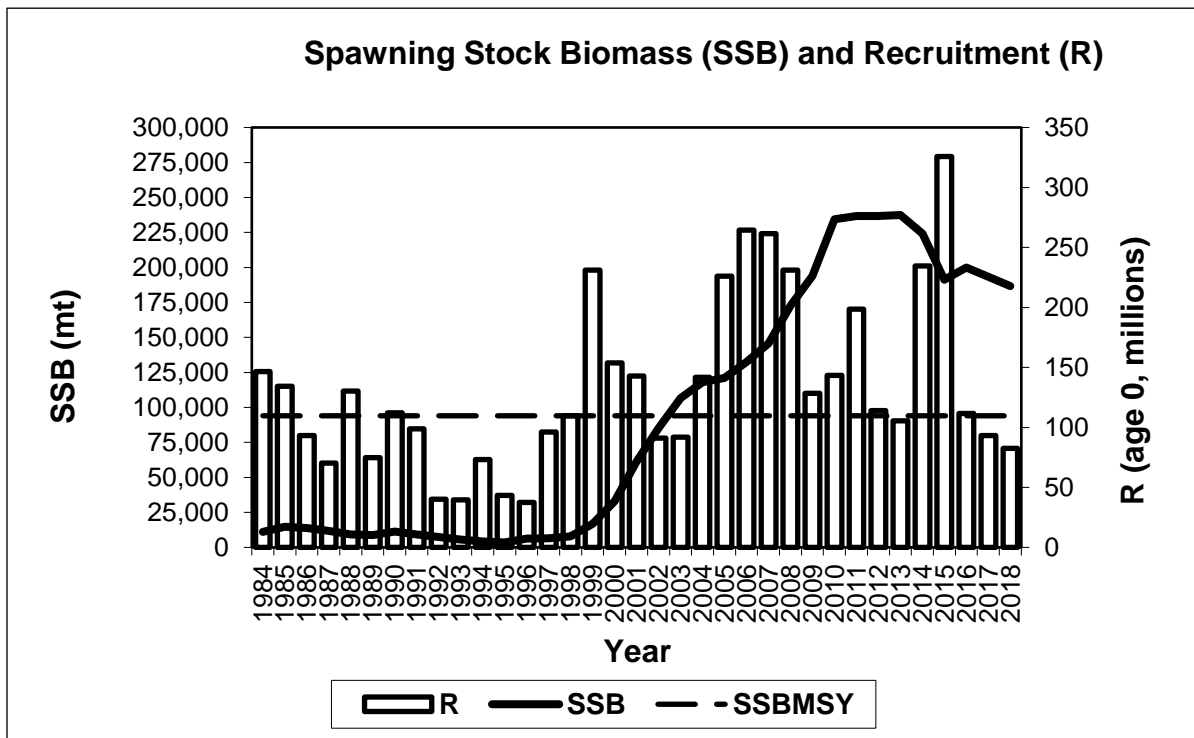
A scup management track assessment will undergo peer review in July 2021 and will be used to inform 2022-2023 catch and landings limits. This assessment will consist of rerunning the existing model with data through 2019. Given data gaps for 2020 related to COVID-19 and the time required to address those gaps where possible, 2020 data could not be incorporated into this update.

**Table 1:** Scup biological reference points from the 2019 operational stock assessment.

<b>Reference Points and terminal year SSB and F estimates</b>	<b>2019 operational stock assessment<sup>4</sup></b> Data through 2018
<b>SSB<sub>MSY proxy</sub> = SSB<sub>40%</sub></b> (biomass target)	207.28 mil lb/ 94,020 mt
<b>½ SSB<sub>MSY</sub></b> (biomass threshold defining an overfished status)	103.639 mil lb/ 47,010 mt
<b>Terminal year SSB</b>	411 mil lb/186,578 mt (2018) 198% of SSB <sub>MSY</sub>
<b>F<sub>MSY proxy</sub> = F<sub>40%</sub></b> (threshold defining overfishing)	0.215



**Figure 1:** Total fishery catch and fishing mortality rate (F) for fully selected age 3 scup, 1984-2018. The horizontal dashed line is the fishing mortality reference point from the from the 2019 operational stock assessment. Overfishing is occurring when the fishing mortality rate exceeds this threshold.<sup>4</sup>



**Figure 2:** Scup spawning stock biomass and Recruitment, 1984-2018. The horizontal dashed line is the biomass target from the from the 2019 operational stock assessment.<sup>4</sup>

## **Management System and Fishery Performance**

### *Management*

The Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission (Commission) cooperatively develop fishery regulations for scup off the east coast of the United States. The National Marine Fisheries Service (NMFS) 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). The management unit for scup includes U.S. waters from Cape Hatteras, North Carolina to the U.S./Canadian border.

The federal Fishery Management Plan (FMP) for scup has been in place since 1996, when scup were incorporated into the Summer Flounder FMP through Amendment 8. Amendment 8 established gear restrictions, reporting requirements, commercial quotas, a moratorium on new commercial scup permits, recreational possession limits, and minimum size restrictions for scup fisheries. 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/](http://www.mafmc.org/sf-s-bsb/).

The Council's Scientific and Statistical Committee (SSC) recommends annual Acceptable Biological Catch (ABC) levels for scup. The annual ABC is divided into commercial and recreational Annual Catch Limits (ACLs), based on the allocation percentages prescribed in the FMP (i.e. 78% commercial, 22% recreational). The Council and Commission are considering an ongoing FMP amendment to determine if these allocation percentages should be revised to reflect more recent data. Both ABCs and ACLs are catch-based limits, meaning they account for both landings and discards. Projected discards are subtracted to determine the commercial quota and recreational harvest limit (RHL), which are landings-based limits.

### *COVID-19 Data Issues in 2020*

The COVID-19 pandemic impacted data collection in both the recreational and commercial fisheries. While effort and markets were impacted by COVID-19 to various degrees, data collection for commercial landings from seafood dealers continued uninterrupted. However, 2020 commercial discard estimates will be affected by missing observer data. Commercial discard estimates are developed using Standardized Bycatch Reporting Methodology (SBRM) approaches that rely heavily on observer data. On March 20, 2020, NMFS temporarily waived the requirement for vessels with Greater Atlantic permits to carry a fishery observer or at-sea monitor. This waiver was extended several times before observers were redeployed on August 14, 2020. At this time it is not clear whether alternative methodologies will be developed to generate 2020 commercial discard estimates for scup and other species.

The COVID-19 pandemic disrupted the recreational Access Point Angler Intercept Survey (APAIS). All Mid-Atlantic states suspended APAIS sampling starting in late March or April 2020. States resumed sampling between May and August 2020, depending on the state. NMFS used imputation methods to fill gaps in 2020 catch data with data collected in 2018 and 2019. These proxy data match the time, place, and fishing mode combinations that would have been sampled had the APAIS continued uninterrupted. Proxy data were combined with observed data to produce catch estimates using the standard estimation methodology. The mail and telephone surveys that collect recreational effort data continued largely uninterrupted. NMFS has indicated that when complete 2021 recreational data are available in 2022, they will evaluate the effects of including

2021 data (for example, alongside 2019 data and instead of 2018 data) in the imputation. Because these effects are unknown, the agency cannot predict whether it will seek to revise its 2020 catch estimates.

### *Fishery Landings Summary*

Table 2 shows scup catch and landings limits from 2010 through 2021, as well as commercial and recreational landings through 2020.

Total scup landings (commercial and recreational) from Maine to North Carolina peaked in 1981 at over 32 million pounds and reached a low of 6 million pounds in 1998. In 2020, about 26.49 million pounds of scup were landed by commercial and recreational fishermen (Figure 3).<sup>5,6</sup>

**Table 2:** Summary of scup catch limits, landings limits, and landings, 2011 through 2021. Values are in millions of pounds unless otherwise noted.

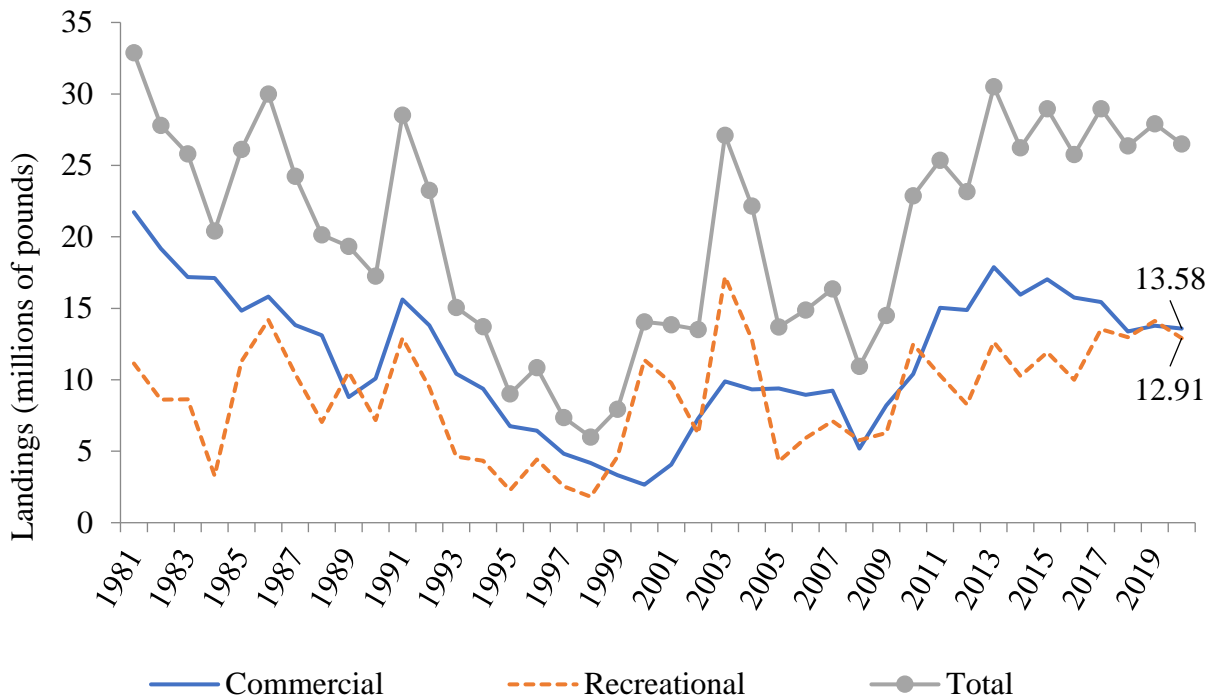
Measure	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 <sup>d</sup>
ABC	51.7	40.88	38.71	35.99	33.77	31.11	28.4	39.14	36.43	35.77	34.81
TAC <sup>a</sup>	31.92	--	--	--	--	--	--	--	--	--	--
Commercial ACL	--	31.89	30.19	28.07	26.35	24.26	22.15	30.53	28.42	27.9	27.15
Commercial quota <sup>b</sup>	20.36	27.91	23.53	21.95	21.23	20.47	18.38	23.98	23.98	22.23	20.5
Commercial landings	15.03	14.88	17.87	15.96	17.03	15.76	15.45	13.38	13.78	13.58	--
% of commercial quota landed	74%	53%	76%	72%	80%	77%	84%	55%	57%	61%	--
Recreational ACL	--	8.99	8.52	7.92	7.43	6.84	6.25	8.61	8.01	7.87	7.66
RHL <sup>b</sup>	5.74	8.45	7.55	7.03	6.8	6.09	5.5	7.37	7.37	6.51	6.07
Recreational landings, old MRIP estimates	3.67	4.17	5.37	4.43	4.41	4.26	5.42	5.61	--	--	--
% of RHL harvested <sup>c</sup>	64%	49%	71%	63%	65%	70%	98%	76%	--	198%	--
Recreational landings, new MRIP estimates	10.32	8.27	12.64	10.27	12.17	10	13.53	12.98	14.12	12.91	--

<sup>a</sup> Prior to implementation of the 2011 Omnibus ACLs and AMs Amendment, the Council specified a Total Allowable Catch (TAC). After implementation of this amendment, the Council specified ABCs instead of TACs. Both terms refer to the total catch limit in a given year. The difference between the TAC and the ABC in 2011 was due to the Council specifying a more conservative limit than that recommended by the SSC.

<sup>b</sup> Commercial quotas and RHLs reflect the removal of projected discards from the sector-specific ACLs. For 2006-2014, these limits were also adjusted for Research Set Aside.

<sup>c</sup> The percent of RHL harvested is based on a comparison of the RHL to the old MRIP estimates through 2018. The RHLs prior to 2020 did not account for the new MRIP estimates, which were released in July 2018 and were not incorporated into a stock assessment until 2019; therefore, it would be inappropriate to compare past RHLs to the revised MRIP estimates. The first year that the RHL was set using the new MRIP estimates was 2020.

<sup>d</sup> The 2021 measures were revised in 2020 by the SSC, the Council, and the Commission in accordance with the Council's changes to their risk policy.



**Figure 3:** Commercial and recreational scup landings, Maine - North Carolina, 1981-2020 (2020 values are labeled on chart). Recreational landings are based on the new MRIP numbers.<sup>5,6</sup>

### Commercial Fishery

Commercial scup landings peaked in 1981 at 21.73 million pounds and reached a low of 2.66 million pounds in 2000 (Figure 3). In 2020, commercial fishermen landed 13.58 million pounds of scup, about 61% of the commercial quota.<sup>5</sup>

As previously mentioned, 2020 commercial discard data are currently unavailable due to COVID-19 related interruptions in observer coverage. In 2019, about 6.13 million pounds of scup were discarded in commercial fisheries, representing a 9% decrease from 2018. Commercial discards increased from 2014-2017, peaking at about 10.42 million pounds in 2017. This was the highest number of discards since at least 1981 and was likely mainly due to the large 2015 year class, which is the largest year class since 1984. In 2017, these scup were very abundant, but mostly too small to be landed in the commercial fishery due to the commercial minimum fish size of 9 inches total length.<sup>5</sup>

The commercial scup fishery operates year-round, taking place mostly in federal waters during the winter and mostly in state waters during the summer. A coast-wide commercial quota is allocated between three quota periods, known as the winter I, summer, and winter II quota periods. These seasonal quota periods were established to ensure that both smaller day boats, which typically operate near shore in the summer months, and larger vessels operating offshore in the winter months can land scup before the annual quota is reached. The dates of the summer and winter II periods were modified in 2018 (Table 3). Both winter periods are managed under a coastwide quota while the summer period quota is divided among states according to the allocation percentages outlined in the Commission’s FMP (Table 4).

Once the quota for a given period is reached, the commercial fishery is closed for the remainder of that period. If the full winter I quota is not harvested, unused quota is added to 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.

A possession limit of 50,000 pounds is in effect during the winter I quota period. A possession limit of 12,000 pounds is in effect during the winter II period. If the winter I quota is not reached, the winter II possession limit increases by 1,500 pounds for every 500,000 pounds of quota not caught during winter I. During the summer period, various state-specific possession limits are in effect.

The commercial scup fishery in federal waters is predominantly a bottom otter trawl fishery. In 2020, about 96% of the commercial scup landings (by weight) reported by federal VTR data were caught with bottom otter trawls. Pots/traps accounted for about 2% of landings, while all other gear types each accounted for 1% or less of the 2020 commercial scup landings.<sup>9</sup>

Until 2019, trawl vessels could not possess 1,000 pounds or more of scup during October - April, or 200 pounds or more during May - September, unless they use 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. In 2019, another threshold period was added from April 15-June 15 with a 2,000 pound possession limit to allow for higher retention in the small-mesh squid fishery (Table 5). 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.

VTR data suggest that NMFS statistical areas 537, 616, 613, 539 and 611 were responsible for the largest percentage of commercial scup catch in 2020. Statistical area 539, off Rhode Island, had the highest number of trips which caught scup (Table 6, Figure 4).<sup>9</sup>

Over the past two decades, total scup ex-vessel revenue ranged from a low of \$4.8 million in 2000 to a high of \$12.3 million in 2015. In 2020, 13.58 million pounds of scup were landed by commercial fishermen from Maine through North Carolina. Total ex-vessel value in 2020 was \$9.30 million, resulting in an average price per pound of \$0.68. All revenue and price values were adjusted to 2020 dollars to account for inflation.<sup>5</sup>

In general, the price of scup tends to be lower when landings are higher, and vice versa (Figure 5). This relationship is not linear and many other factors besides landings also influence price. The highest average price per pound over the past two decades was \$2.20 and occurred in 1998. The lowest average price per pound was \$0.61 and occurred in 2013.<sup>5</sup>

Over 147 federally-permitted dealers from Maine through North Carolina purchased scup in 2020. More dealers in New York purchased scup than in any other state (Table 7).<sup>5</sup>

At least 100,000 pounds of scup were landed by commercial fishermen in 14 ports in 6 states in 2020. These ports accounted for approximately 91% of all 2020 commercial scup landings. Point Judith, Rhode Island was the leading port, both in terms of landings and number of vessels landing scup (Table 8).<sup>5</sup> Detailed community profiles developed by the Northeast Fisheries Science Center's Social Science Branch can be found at [www.mafmc.org/communities/](http://www.mafmc.org/communities/).

A moratorium permit is required to fish commercially for scup. In 2020, 605 vessels held commercial moratorium permits for scup.<sup>10</sup>



**Table 3:** Dates, allocations, and possession limits for the commercial scup quota periods. Winter period possession limits apply in both state and federal waters.

Quota Period	Dates	% 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 – September 30*	38.95%	State-specific
Winter II	October 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 of scup not landed during winter I.

\*Prior to 2018, the summer period was May 1 - October 31 and the winter II period was November 1 - December 31, with the same allocations as shown above.

**Table 4:** State-by-state quotas for the commercial scup fishery during the summer quota period (May-September).

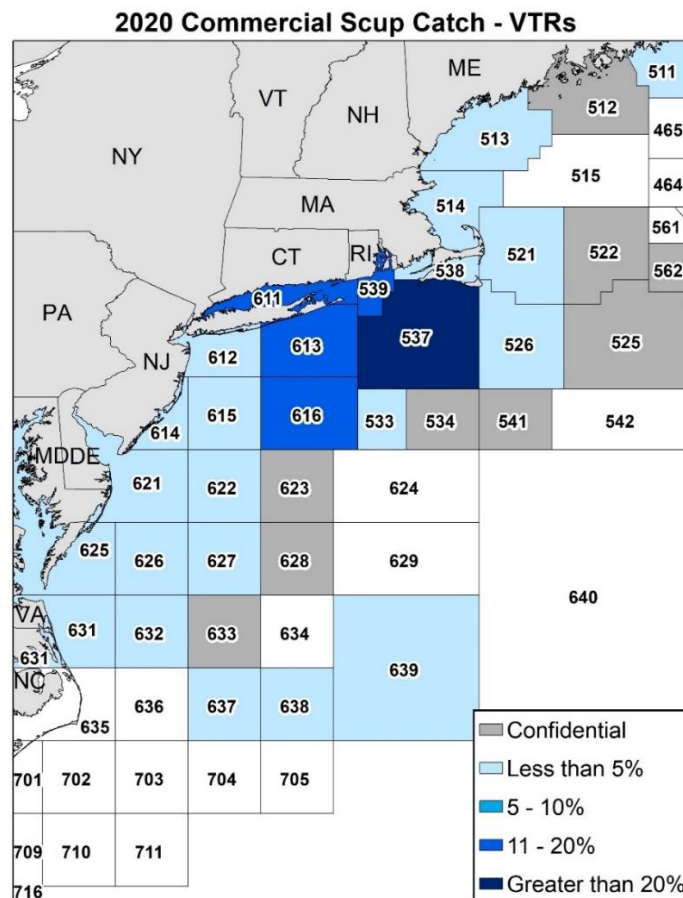
State	Share of summer quota
Maine	0.1210%
Massachusetts	21.5853%
Rhode Island	56.1894%
Connecticut	3.1537%
New York	15.8232%
New Jersey	2.9164%
Maryland	0.0119%
Virginia	0.1650%
North Carolina	0.0249%
Total	99.9908%

**Table 5:** Changes in scup small mesh incidental possession limit for the commercial fishery from 2018 to 2019.

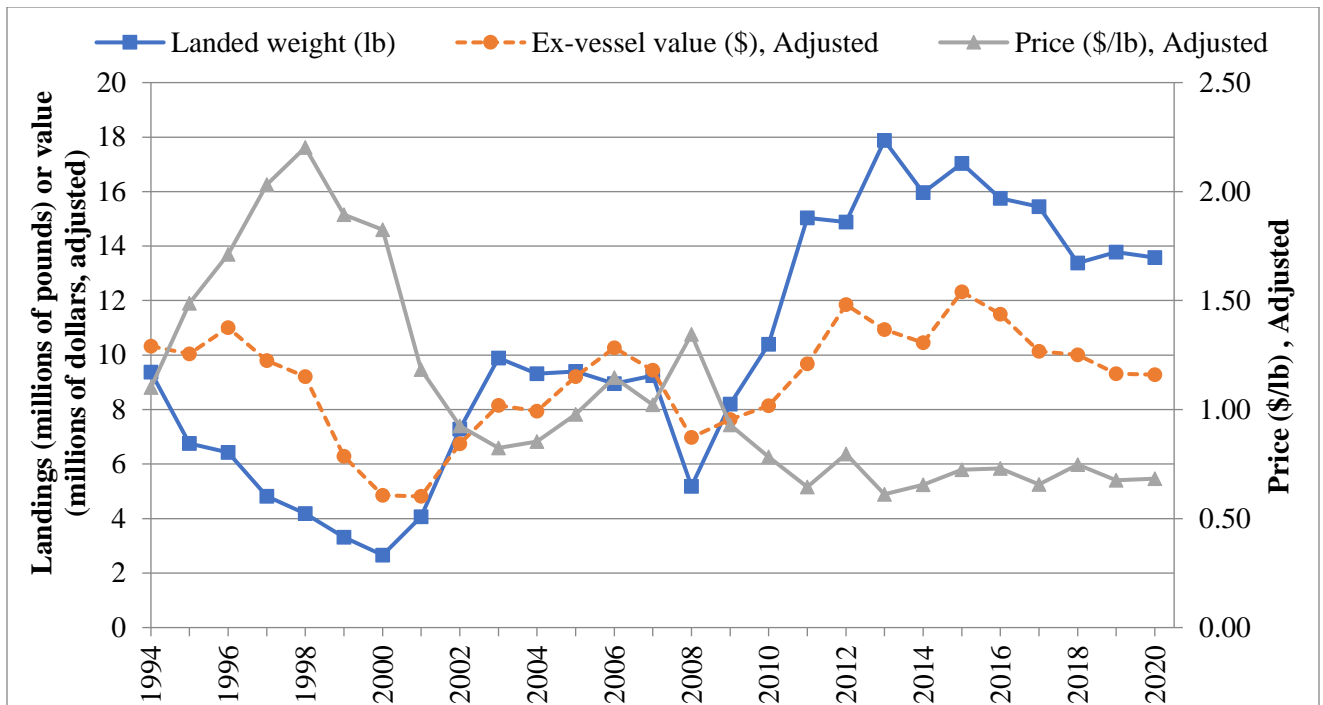
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
<b>2018</b>	1,000 lb				200 lb				1,000 lb			
<b>2019-2021</b>	1,000 lb			2,000 lb		200 lb			1,000 lb			

**Table 6:** Statistical areas which accounted for at least 5% of the total commercial scup catch (by weight based on VTR data) in 2020, with associated number of trips.<sup>9</sup> Federal VTR data do not capture landings by vessels only permitted to fish in state waters.

Statistical area	% of 2020 commercial scup catch	Number of trips
537	20%	894
616	20%	585
613	17%	1,252
539	11%	2,365
611	11%	2,209



**Figure 4:** Proportion of scup catch by statistical area in 2020 based on federal VTR data. Statistical areas marked “confidential” are associated with fewer than three vessels and/or dealers. Statistical areas with confidential data collectively accounted for about 1% of commercial catch reported on VTRs in 2020. The amount of catch (landings and discards) that was not reported on federal VTRs (e.g., catch from vessels permitted to fish only in state waters) is unknown. In 2019, Northeast Fisheries Science Center Data (“AA tables”) suggest that 18% of total commercial landings (state and federal) were not associated with a statistical area reported in federal VTRs; AA data for 2020 is not available.



**Figure 5:** Landings, ex-vessel value, and price for scup from Maine through North Carolina, 1994-2020. Ex-vessel value and price are inflation-adjusted to 2020 dollars using the Gross Domestic Product Price Deflator.<sup>5</sup>

**Table 7:** Number of dealers per state which reported purchases of scup in 2020. C = Confidential.<sup>5</sup>

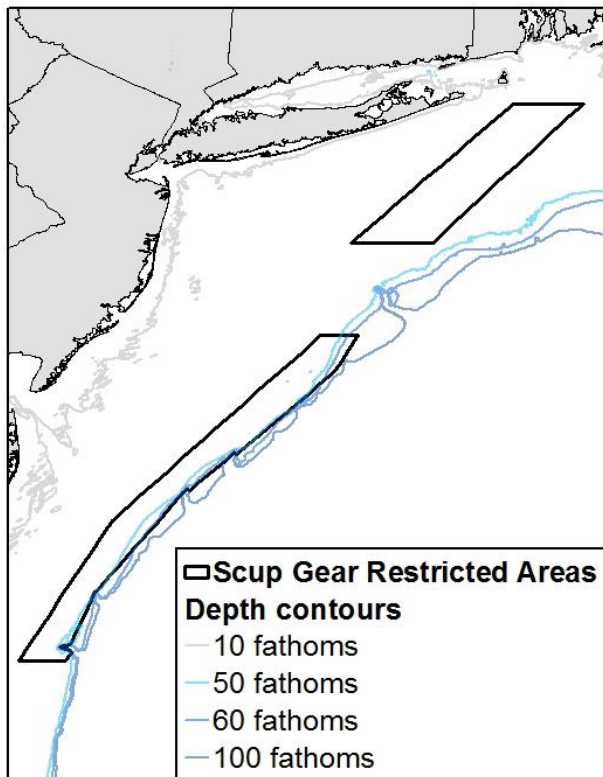
State	NH	MA	RI	CT	NY	NJ	DE	MD	VA	NC
Number of Dealers	C	26	26	12	38	17	C	4	10	11

**Table 8:** Ports reporting at least 100,000 pounds of scup landings in 2020, based on NMFS dealer data. C = Confidential.<sup>5</sup>

Port	Scup landings (lb)	% of total commercial scup landings	Number of vessels
POINT JUDITH, RI	3,555,514	26%	126
MONTAUK, NY	3,236,326	24%	84
PT. PLEASANT, NJ	1,352,306	10%	32
CAPE MAY, NJ	811,353	6%	25
MATTITUCK, NY	478,300	4%	5
NEW BEDFORD, MA	474,084	3%	54
HAMPTON BAY, NY	471,657	3%	25
STONINGTON, CT	438,887	3%	21
LITTLE COMPTON, RI	403,382	3%	12
NEW LONDON, CT	301,782	2%	6
HAMPTON, VA	265,945	2%	29
SHINNECOCK, NY	174,713	1%	6
EAST HAVEN, CT	163,196	1%	7
AMMAGANSETT, RI	C	C	C

#### *Scup Gear Restricted Areas*

Two scup gear restricted areas (GRAs) were first implemented in 2000 with the goal of reducing scup discards in small-mesh fisheries. The GRA boundaries have been modified multiple times since their initial implementation. The current boundaries are shown in Figure 6. Trawl vessels may not fish for or possess longfin squid, black sea bass, or silver hake in the Northern GRA from November 1 – December 31 and in the Southern GRA from January 1 – March 15 unless they use mesh which is at least 5 inches in diameter. The GRAs are thought to have contributed to the recovery of the scup population in the mid- to late-2000s.<sup>8</sup> As previously stated, commercial scup discards increased by 71% between 2016 and 2017, likely due to the large 2015 year class.<sup>4</sup> Although discards decreased by about 41% in 2019 compared with the record high discards in 2017, they still remain well above average. Further analysis is needed to evaluate the impact of the GRA modification on commercial scup discards in 2017-2020.



**Figure 6:** The Scup Gear Restricted Areas.

#### *Recreational Fishery*

The recreational scup fishery is managed on a coast-wide basis in federal waters. Current federal regulations include a minimum size of 9 inches total length, a year-round open season, and a possession limit of 50 scup (Table 9). These measures have been unchanged since 2015.

The Commission applies a regional management approach to recreational scup fisheries in state waters, where New York, Rhode Island, Connecticut, and Massachusetts develop regulations intended to achieve 97% of the RHL. The minimum fish size, possession limit, and open season for recreational scup fisheries in state waters vary by state. State waters measures remained unchanged from 2015 through 2017. Massachusetts through New Jersey liberalized their minimum size limits and/or seasons in 2018 compared to 2017 and there were very minor changes in the state regulations from 2018 to 2019. There were no changes to state measures from 2019 to 2021 (Table 10).

Recreational data are available from MRIP. In July 2018, MRIP released revisions to their time series of recreational catch and landings estimates based on adjustments for a revised angler intercept methodology and a new effort estimation methodology, including a transition from a telephone-based effort survey to a mail-based effort survey. The RHLs and other management measures through 2019 were based on the old MRIP estimates. The new estimates of catch and landings are several times higher than the previous estimates for shore and private boat modes, substantially raising the overall scup catch and harvest estimates. Information presented in this section is based on the new estimates.

From 1981-2020, recreational catch of scup peaked in 2017 at 41.20 million scup and landings peaked in 1986 with an estimated 30.43 million scup landed by recreational fishermen from Maine through North Carolina. Recreational catch was lowest in 1998 when an estimated 6.86 million scup were caught and 2.74 million scup were landed. Recreational anglers from Maine through North Carolina caught an estimated 27.27 million scup and landed 14.49 million scup (about 12.91 million pounds) in 2020 (Table 11).<sup>6</sup>

The Council and Board agreed to leave the recreational bag, size, and season limits unchanged in 2020 despite an expected RHL overage (Table 2). This was viewed as a temporary solution to allow more time to consider how to fully transition the management system to use of the revised MRIP data, including ongoing considerations related to the commercial/recreational allocation and the Recreational Reform Initiative. The 2020 RHL overage will be discussed in development of 2022 recreational measures but is unlikely to impact the 2022 RHL and ACL given recent biomass estimates and the Council’s Accountability Measures.<sup>7</sup>

Vessels carrying passengers for hire in federal waters must obtain a federal party/charter permit. In 2020, 740 vessels held scup federal party/charter permits. Many of these vessels also held party/charter permits for summer flounder and black sea bass.<sup>10</sup>

Most recreational scup catch occurs in state waters during the warmer months when the fish migrate inshore. Between 2018 and 2020, about 93.5% of recreational scup catch (in numbers of fish) occurred in state waters and about 6.5% occurred in federal waters (Table 12). New York, Connecticut, Rhode Island, Massachusetts, and New Jersey accounted for over 99.9% of recreational scup harvest in 2020 (Table 13).<sup>6</sup>

About 62% of recreational scup landings (in numbers of fish) in 2020 were from anglers who fished on private or rental boats. About 12% were from anglers fishing on party or charter boats, and about 28% were from anglers fishing from shore (Table 14).<sup>6</sup>

**Table 9:** Federal recreational measures for scup, 2005-2021.

<b>Regulation</b>	<b>2005-2007</b>	<b>2008-2009</b>	<b>2010-2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015-2021</b>
<b>Minimum size (total length)</b>	10 in.	10.5 in.	10.5 in.	10.5 in.	10 in.	9 in.	9 in.
<b>Possession limit</b>	50	15	10	20	30	30	50
<b>Open season</b>	Jan 1–Feb 28 & Sept 18 – Nov 30	Jan 1–Feb 28 & Oct 1–Oct 31	Jun 6 – Sept 26	Jan 1 – Dec 31	Jan 1 – Dec 31	Jan 1 – Dec 31	Jan 1 – Dec 31

**Table 10:** State recreational fishing measures for scup in 2019-2021.

State	Minimum Size (inches)	Possession Limit	Open Season
MA (private & shore)	9	30 fish; 150 fish/vessel with 5+ anglers on board	April 13-December 31
MA (party/charter)	9	30 fish	April 13-April 30; July 1-December 31
		50 fish	May 1-June 30
RI (private & shore)	9	30 fish	January 1-December 31
RI shore program (7 designated shore sites)	8		
RI (party/charter)	9	30 fish	January 1-August 31; November 1-December 31
		50 fish	September 1-October 31
CT (private & shore)	9	30 fish	January 1-December 31
CT shore program (45 designated shore sites)	8		
CT (party/charter)	9	30 fish	January 1-August 31; November 1-December 31
		50 fish	September 1-October 31
NY (private & shore)	9	30 fish	January 1-December 31
NY (party/charter)	9	30 fish	January 1-August 31; November 1-December 31
		50 fish	September 1- October 31
NJ	9	50 fish	January 1- December 31
DE	8	50 fish	January 1-December 31
MD	8	50 fish	January 1-December 31
VA	8	30 fish	January 1-December 31
NC, North of Cape Hatteras (N of 35° 15'N)	8	50 fish	January 1-December 31

**Table 11:** Estimated recreational catch and harvest of scup, Maine - North Carolina, 2011 – 2020, based on the revised MRIP estimates.<sup>6</sup>

<b>Year</b>	<b>Recreational catch (millions of fish)</b>	<b>Recreational harvest (millions of fish)</b>	<b>Recreational harvest (millions of pounds)</b>	<b>% of catch retained</b>
2011	18.52	7.60	10.32	41%
2012	21.24	7.33	8.27	35%
2013	25.88	11.55	12.64	45%
2014	20.88	9.49	10.27	45%
2015	25.15	11.50	12.17	46%
2016	31.49	9.14	10.00	29%
2017	41.20	13.82	13.53	34%
2018	30.37	14.55	12.98	48%
2019	28.67	14.95	14.12	52%
2020	27.27	14.49	12.91	53%

**Table 12:** Estimated percent of scup (in numbers of fish) caught by recreational fishermen in state and federal waters, Maine - North Carolina, 2011 – 2020, based on the revised MRIP estimates.<sup>6</sup>

<b>Year</b>	<b>State waters</b>	<b>Federal waters</b>
<b>2011</b>	98.5%	1.5%
<b>2012</b>	99.7%	0.3%
<b>2013</b>	96.3%	3.7%
<b>2014</b>	96.5%	3.5%
<b>2015</b>	98.9%	1.1%
<b>2016</b>	93.5%	6.5%
<b>2017</b>	96.0%	4.0%
<b>2018</b>	96.2%	3.8%
<b>2019</b>	95.5%	4.5%
<b>2020</b>	88.6%	11.4%
<b>2011-2020 average</b>	<b>96.0%</b>	<b>4.0%</b>
<b>2018-2020 average</b>	<b>93.5%</b>	<b>6.5%</b>



**Table 13:** Recreational scup harvest by state, 2018- 2020. Percentages were calculated based on numbers of fish using the revised MRIP estimates.<sup>6</sup>

State	2018	2019	2020	2018-2020 average
Maine	0%	0%	0%	0%
New Hampshire	0%	0%	0%	0%
Massachusetts	22%	13%	9%	15%
Rhode Island	16%	22%	11%	16%
Connecticut	21%	17%	25%	21%
New York	37%	48%	49%	44%
New Jersey	3%	1%	6%	3%
Delaware	0%	0%	0%	0%
Maryland	0%	0%	0%	0%
Virginia	0%	0%	0%	0%
North Carolina	0%	0%	0%	0%

**Table 14:** Scup harvest (in numbers of fish) by recreational fishing mode, Maine - North Carolina, 2011 – 2020, based on the revised MRIP estimates. Some percentages do not sum to 100% due to rounding.<sup>6</sup>

Year	Shore	Party/charter	Private/rental	Total number
2011	22%	7%	72%	7,598,242
2012	14%	16%	69%	7,334,829
2013	34%	15%	51%	11,547,027
2014	20%	15%	65%	9,488,949
2015	17%	8%	76%	11,498,783
2016	34%	10%	56%	9,143,579
2017	23%	11%	65%	13,820,611
2018	43%	9%	48%	14,545,488
2019	29%	15%	56%	14,954,157
2020	28%	10%	62%	14,493,250
2011-2020 average	26%	12%	62%	11,442,492
2018-2020 average	33%	12%	55%	14,664,298

## References

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<sup>2</sup> Northeast Data Poor Stocks Working Group. 2009. The northeast data poor stocks working group report, part A: skate species complex, deep sea red crab, Atlantic wolf fish, scup, and black sea bass. Northeast Fish Science Center Reference Document 09-02; 496 p. Available at: <http://www.nefsc.noaa.gov/publications/crd/crd0902/>.

<sup>3</sup> Northeast Fisheries Science Center. 2015. 60<sup>th</sup> Northeast Regional Stock Assessment (60<sup>th</sup> SAW) assessment report. Northeast Fisheries Science Center Reference Document 15-08. Available at: <http://www.nefsc.noaa.gov/publications/>.

<sup>4</sup> Northeast Fisheries Science Center. 2019. Prepublication copy of the August 2019 operational stock assessment report prepared for the Council and the SSC. Available at: <http://www.mafmc.org/ssc-meetings/2019/september-9-11>

<sup>5</sup> Unpublished NMFS commercial fish dealer data (i.e., “DERS”), which include both state and federal dealer data).

<sup>6</sup> Personal communication from the National Marine Fisheries Service, Fisheries Statistics Division. Accessed June 2020. Available at: <https://www.st.nmfs.noaa.gov/recreational-fisheries/data-and-documentation/queries/index>.

<sup>7</sup> Accountability Measures for Summer Flounder, Scup, and Black Sea Bass. Available at: [https://www.mafmc.org/s/AMs-description\\_SF\\_scup-BSB\\_Dec2020.pdf](https://www.mafmc.org/s/AMs-description_SF_scup-BSB_Dec2020.pdf)

<sup>8</sup> Terceiro, M., A. Miller. 2014. Commercial fishery scup discarding and the Gear Restricted Areas (GRAs). White paper for the Mid-Atlantic Fishery Management Council. 30 p.

<sup>9</sup> Unpublished NMFS Vessel Trip Report data.

<sup>10</sup> Unpublished NMFS permit data.