

# **Scup Fishery Information Document**

#### **June 2024**

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 2023. Data sources include unpublished National Marine Fisheries Service (NMFS) Catch Accounting and Monitoring System (CAMS) data, permit data, Northeast Fisheries Observer Program data, Marine Recreational Information Program (MRIP) data, and stock assessment information. All 2023 data should be considered preliminary. Due to adjustments and corrections to the data over time, some values may differ from the values used in previous years and for final catch accounting. For more resources on scup management, including previous Fishery Information Documents, please visit <a href="http://www.mafmc.org/sf-s-bsb/">http://www.mafmc.org/sf-s-bsb/</a>.

## **Key Facts:**

- A 2023 management track assessment using data through 2022 indicated that the scup stock was not overfished, and overfishing was not occurring in 2022.
- Commercial landings increased from 12.17 mil lbs. in 2022 to 13.01 mil lbs. in 2023.
- Price per pound and total ex-vessel value, however, decreased compared to 2022 and were about \$0.66 and \$8.18 million in 2023, respectively.
- Recreational landings decreased from 17.36 mil lbs. in 2022 to 11.91 mil lbs. in 2023.
- The majority of scup harvested recreationally in 2023 was caught by private vessels (53%), followed by anglers fishing from shore (36%), and anglers fishing from for-hire vessels (12%).

#### **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

<sup>&</sup>lt;sup>1</sup> CAMS includes commercial dealer data, including federal and state permitted dealers, as well as federal VTR data and expanded estimates of commercial dead discards. More information on CAMS is available at <a href="https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/cams/index.html">https://www.greateratlantic.fisheries.noaa.gov/ro/fso/reports/cams/index.html</a>.

<sup>&</sup>lt;sup>2</sup> 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 (i.e., a transition from a telephone-based effort survey to a mail-based effort survey). The revised estimates of catch and landings are higher than the previous estimates for shore and private boat modes. The recreational estimates in this document reflect revised MRIP estimates except where otherwise noted.

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 (Steimle et al., 1999).

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 (NEFSC 2015).

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) 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 (Steimle et al., 1999).

#### **Status of the Stock**

In June 2023, the NEFSC provided the 2023 management track assessment for scup. This assessment retained the model structure of the previous benchmark stock assessment, completed in 2015,<sup>3</sup> and incorporated fishery catch and fishery-independent survey data through 2022.

According to the 2023 assessment, the scup stock from Cape Hatteras, North Carolina extending north to the US-Canada border was not overfished and overfishing was not occurring in 2022. Retrospective adjustments were made to the model results. The retrospective adjustments increased the SSB estimate and decreased the F estimate. Adjusted values are used in the projections and management. Adjustments have not been required in previous scup assessment given retrospective patterns were not strong. From the 2023 management track assessment, adjusted SSB was estimated to be about 425 million pounds (193,087 mt) in 2022, about 2.5 times the SSB<sub>MSY</sub> proxy reference point of 173.27 million pounds (78,593 mt; Figure 1) meaning that the stock was not overfished in 2022. There was a notable increasing trend in SSB since the early 2000s; however, in recent years SSB has declined from a peak in 2017 (Figure 1).

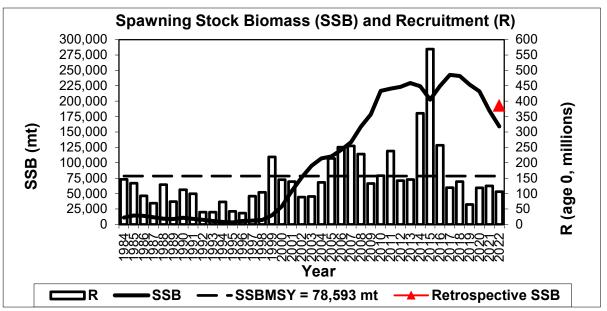
Adjusted fishing mortality on fully selected age 4 scup was 0.098 in 2022, about 52% of the  $F_{MSY}$  proxy reference point of 0.190 (Figure 2), meaning that overfishing was not occurring in 2022. The 2015-year class is estimated to be the largest in the time series at 569 million fish, while the 2017–2022-year classes are estimated to be below average (Figure 2).

A data update from the NEFSC is expected in June/July 2024 with recent catch and landings information as well as recent NEFSC trawl survey data. The next management track assessment for scup is expected in 2025 to inform 2026-2027 limits, and a scup research track assessment is tentatively scheduled for 2028.

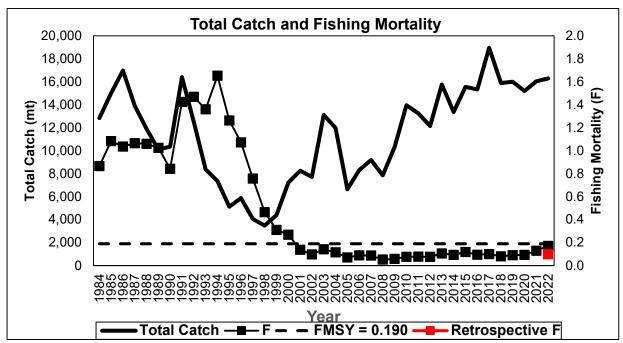
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<sup>&</sup>lt;sup>3</sup> 60<sup>th</sup> Northeast Stock Assessment Workshop (2015) assessment report and peer review summaries are available at: <a href="https://repository.library.noaa.gov/view/noaa/4975">https://repository.library.noaa.gov/view/noaa/4975</a>

<sup>&</sup>lt;sup>4</sup> Available at: <a href="https://apps-nefsc.fisheries.noaa.gov/saw/sasi.php">https://apps-nefsc.fisheries.noaa.gov/saw/sasi.php</a>



**Figure 1:**Scup spawning stock biomass and recruitment, 1984-2019. The horizontal dashed line represents the biomass target from the 2023 management track stock assessment. Adjusted SSB in 2022 for comparison against the SSBMSY proxy reference point is 193,087 mt.



**Figure 2:** Total fishery catch and fishing mortality rate (F) for fully selected age 4 scup, 1984-2019. The horizontal dashed line is the fishing mortality reference point from the 2023 management track stock assessment. The red square is the retrospectively adjusted fishing mortality value for 2022. The adjusted value is used in management.

### **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: <a href="https://www.mafmc.org/sf-s-bsb/">www.mafmc.org/sf-s-bsb/</a>.

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. Through 2022 the allocation was 78% commercial, 22% recreational. Starting in 2023, the ABC is now allocated 65% to the commercial fishery and 35% to the recreational fishery. 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. <sup>5</sup>

#### Fishery Catch Summary

Table 1 shows scup total catch and catch limits from 2015 through 2024, as well as the overfishing limit (OFL) from which the ABC is derived. The ABC is set less than or equal to the OFL to account for scientific uncertainty. According to the most recent available catch information, the OFL for scup was exceed just slightly in 2017 and 2021, and by over 10% in 2022 and again in 2023 (Table 1). The scup ABC was also exceeded those same four years (2017, 2021, 2022 and 2023; Table 1).

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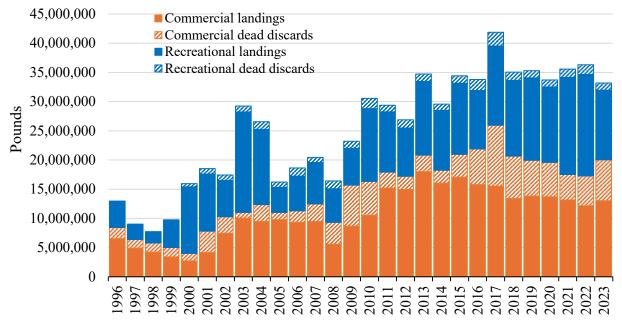
<sup>&</sup>lt;sup>5</sup> For more information on these allocation revisions, see the fact sheet at: <a href="https://www.mafmc.org/s/SFSBSB-Allocation-FAQs.pdf">https://www.mafmc.org/s/SFSBSB-Allocation-FAQs.pdf</a>.

**Table 1:** Total scup catch (i.e., commercial and recreational landings and dead discards) compared to the OFL and ABC. All values are in millions of pounds. Total catch calculations use "old" MRIP data through 2019, and "new" MRIP data for 2020-2022.

Year	Total	OFL	OFL	ABC	ABC
	catcha		overage/underage		overage/underage
2015	26.65	47.8	-44%	33.77	-21%
2016	28.05	35.8	-22%	31.11	-10%
2017	33.76	32.09	5% <sup>b</sup>	28.4	19%
2018	27.68	45.05	-39%	39.14	-29%
2019	26.57	41.03	-35%	36.43	-27%
2020	33.72	41.17	-18%	35.77	-6%
2021	35.58	35.3	1% <sup>b</sup>	34.81	2%
2022	36.31	32.56	12%	32.11	13%
2023	33.19	30.09	10%	29.67	12%
2024		44.74		43.82	

<sup>&</sup>lt;sup>a</sup> See Table 2 and Table 12 for the commercial and recreational data contributing to the total catch estimates.

Figure 3 shows commercial and recreational landings and dead discards from 1996 through 2023. Total (commercial and recreational combined) scup catch has generally increased since the 1990s with a peak in 2017.



**Figure 3:** Commercial and recreational scup landings and dead discards in pounds, Maine-North Carolina, 1996-2023, based on CAMS data, MRIP data, and preliminary 2024 scup data update information (S. Truesdell, pers. comm, June 2024).

<sup>&</sup>lt;sup>b</sup> The inclusion of CAMS landings data in this table and in Table 2 indicates a slight deviation from past estimates. In some instances, this led to catches slightly exceeding the OFL, differing from past comparisons.

### Commercial Fishery

In 2023, about 13.01 million pounds of scup were landed in the commercial fishery, about 93% of the commercial quota. Commercial quota and ACL overages have been rare in this fishery and as shown in Table 2 there was an ACL overage in 2017 and 2023. Where commercial ACL overages have occurred, they are generally caused by higher-than-expected dead discards, as commercial fishery landings for scup are typically well controlled to the commercial quota (Table 2).

**Table 2:** Scup commercial landings, dead discards, and eatch compared to the commercial quota

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Year	Com. landings <sup>a</sup>	Com. quota	Quota overage/ underage	Com. dead discards <sup>a</sup>	Com. catch <sup>a</sup>	ACL	ACL overage/ underage
2015	17.05	21.23	-20%	3.91	20.96	26.35	-20%
2016	15.78	20.47	-23%	6.11	21.89	24.26	-10%
2017	15.52	18.38	-16%	10.43	25.96	22.15	+17%
2018	13.39	23.98	-44%	7.26	20.65	30.53	-32%
2019	13.81	23.98	-42%	6.13	19.93	28.42	-30%
2020	13.70	22.23	-38%	5.89	19.58	27.9	-30%
2021	13.16	20.5	-36%	4.36	17.52	27.15	-35%
2022	12.17	20.38	-40%	5.10	17.27	25.05	-31%
2023	13.01	14.01	-7%	7.04	20.04	19.29	+4%
2024		21.15				28.48	

<sup>&</sup>lt;sup>a</sup> Commercial landings for 2015-2023 and dead discards from 2020-2023 are based on CAMS data. Commercial dead discards for 2015-2019 are from the 2023 Management Track Assessment.

In 2023, approximately 7.04 million pounds of scup were discarded in commercial fisheries, marking a 38% increase from 2022. Based on recent trends, commercial discards had risen from 2014 to 2017, reaching a peak of about 10.43 million pounds in 2017, the highest since the early 1980s. This peak was likely due to the exceptionally large 2015-year class, the largest since 1984. As a result of the 2015-year class, in 2017 scup were highly abundant but mostly too small to meet the commercial minimum fish size of 9 inches total length. Since 2017, commercial discards have decreased but have remained higher than pre-2015 levels. (Figure 3; Table 2).

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).

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	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 <sup>a</sup>	38.95%	State-specific
Winter II	October 1 – December 31 <sup>a</sup>	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.

<sup>&</sup>lt;sup>a</sup> 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 quota shares for the commercial scup fishery during the summer quota period (May-September).

State	Share of summer quota
Maine	0.121%
Massachusetts	21.587%
Rhode Island	56.195%
Connecticut	3.154%
New York	15.825%
New Jersey	2.917%
Maryland	0.012%
Virginia	0.165%
North Carolina	0.025%
Total	100%

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.

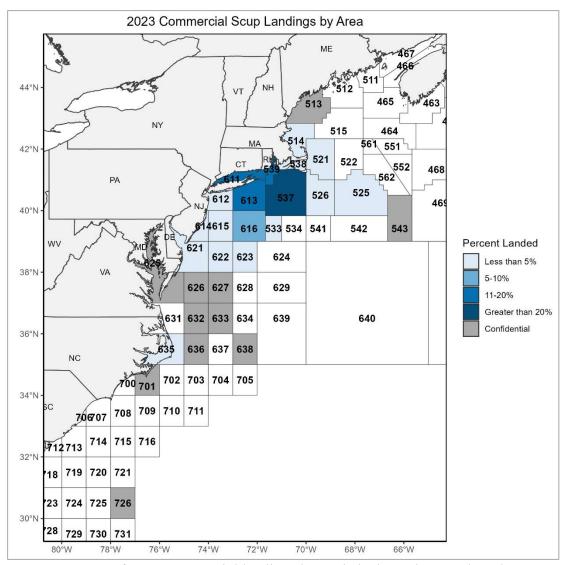
Since 1996, a moratorium permit has been required to fish commercially for scup. In 2023, 512 vessels held commercial moratorium permits for scup. Vessels operating under the scup moratorium permit are required to use a minimum 5-inch diamond mesh throughout the codend for at least 75 continuous meshes forward of the terminus of the net. Vessels with a scup moratorium permit that are not fishing in compliance with the mesh requirements, may retain no more than 1,000 pounds of scup from October 1 to April 14, no more than 2,000 pounds of scup from April 15 through June 15, and no more than 200 pounds of scup from June 16 to September 30. 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.

The commercial scup fishery in federal waters is predominantly a bottom otter trawl fishery. In 2023, 84% of the commercial scup landings (by weight) were caught with bottom otter trawls. Pots/traps accounted for about 7% of landings, and all other gear types, including handlines, pound nets, and other types of nets accounted for about 9% of the 2023 commercial scup landings. Given CAMS data incorporates both state and federal dealer data as well as federal VTR data, the percentages of landings by gear type in 2023 represent a slight shift compared to previous analyses which relied only on federal VTR data.

CAMS data suggests that NMFS statistical areas 537, 539, 611, 613 and 616 were responsible for the largest percentage of commercial scup landings in 2023. Statistical area 539, off Rhode Island, had the highest number of trips which landed scup; however, statistical area 537 accounted for the greatest amount of scup landed (Table 5; Figure 4).

**Table 5:** Statistical areas which accounted for greater than 5% of the total commercial scup landings in 2023, with associated number of trips. based on CAMS data includes both state and federal dealer data as well as federal VTR data.

Statistical area	Percentage of 2023 commercial scup landings	Number of trips
537	21%	1,260
539	18%	7,633
611	16%	5,639
613	15%	1,546
616	10%	370



**Figure 4:** Percentage of scup commercial landings by statistical area in 2023 based on CAMS data, which includes both state and federal dealer data as well as federal VTR data.

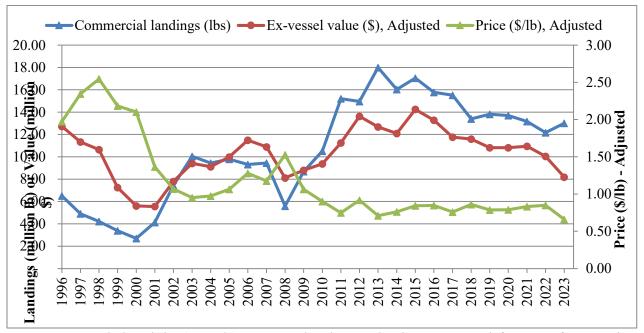
Over the past two decades, total scup ex-vessel revenue ranged from a low of \$5.56 million in 2001 to a high of \$14.25 million in 2015. In 2023, total ex-vessel value was about \$8.18 million with an average price per pound of \$0.66 (Figure 5).

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 likely influence price. The highest average price per pound over the past two decades was about \$2.55 and occurred in 1998. The lowest average price per pound was \$0.55 and occurred in 2013. All revenue and price values were adjusted to 2023 dollars to account for inflation.

Over 160 federally permitted dealers from Maine through North Carolina purchased scup in 2023. More dealers in New York purchased scup than in any other state (Table 6).

At least 100,000 pounds of scup were landed by commercial fishermen in 14 ports in 6 states in 2023, two of these ports; however, include confidential information. The top, non-confidential ports

accounted for approximately 88% of all 2023 commercial scup landings. Point Judith, Rhode Island was the leading port, both in terms of landings and number of vessels landing scup (Table 7). Detailed community profiles developed by the Northeast Fisheries Science Center's Social Science Branch can be found at <a href="https://www.mafmc.org/communities/">www.mafmc.org/communities/</a>.



**Figure 5:** Landed weight (pounds), ex-vessel value, and price per pound for scup from Maine through North Carolina, 1996-2023. Ex-vessel value and price are inflation-adjusted by the Gross Domestic Product Price Deflator indexed for 2023 (<a href="https://fred.stlouisfed.org">https://fred.stlouisfed.org</a>). Average price per pound calculations reflects removal of records with missing value and/or landings information.

**Table 6:** Number of dealers per state which reported purchases of scup in 2023.

State	MA	RI	CT	NY	NJ	DE	MD	VA	NC
Number of Dealers	35	32	13	44	16	3	4	5	7

**Table 7:** Ports reporting at least 100,000 pounds of scup landings in 2023, associated number of vessels, and percentage of total commercial landings. An additional port in New York and another in Virginia also had more than 100,000 pounds of commercial scup landings; however, the values are confidential as they are associated with fewer than three vessels and/or dealers.

Port	Scup landings (lbs.)	% of total landings	Number of vessels
POINT JUDITH, RI	3,724,219	29%	119
MONTAUK, NY	2,517,254	19%	84
CAPE MAY, NJ	1,749,851	13%	32
POINT PLEASANT, NJ	1,620,912	12%	30
NEW BEDFORD, MA	458,879	4%	50
HAMPTON BAYS, NY	324,647	2%	28
STONINGTON, CT	317,595	2%	17
EAST HAVEN, CT	254,433	2%	6
NEW LONDON, CT	202,014	2%	3
WESTPORT, CT	132,027	1%	5
LITTLE COMPTON, RI	125,127	1%	7
GREENPORT, NY	103,172	1%	3

The top non-target species in the commercial scup fishery were identified based on raw data from Northeast Fisheries Observer Program (NEFOP) observed trips from 2019-2023 where scup made up at least 75% of the landings by weight. Using this definition of a directed trip, the most common non-target species in the scup fishery include spiny dogfish, northern sea robin, little skate, summer flounder, and black sea bass (Table 8).

**Table 8:** Percent of non-target species caught in observed trawls where scup made up at least 75% of the observed landings, 2019-2023. Only those non-target species comprising at least 2% of the aggregate catch are listed.

Species	% of total catch on scup observed directed trips, 2019-2023 <sup>a</sup>
DOGFISH, SPINY	8.0%
SEA ROBIN, NORTHERN	3.7%
SKATE, LITTLE	3.3%
FLOUNDER, SUMMER (FLUKE)	2.6%
SEA BASS, BLACK	2.5%

<sup>&</sup>lt;sup>a</sup> Percentages shown are aggregate totals over 2019-2023 and do not reflect the percentages of non-target species caught on individual trips. This analysis describes only observed trips and has not been expanded to the fishery as a whole.

### 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 (Terceiro and Miller, 2014). As previously stated, commercial scup discards increased by 71% between 2016 and 2017, likely due to the large 2015-year class (NEFSC 2021). Although discards have generally decreased compared to the record high discards in 2017, they remain above the total average annual discards from 2003-2023. In 2023, the Council and Board reviewed a commercial discard report and GRA analysis.<sup>6</sup> During the discussion the Council and Board recommended building on the analysis to investigate potential modifications to the GRAs. The Council will be working with a contractor in 2024-2025 to complete this work.<sup>7</sup>

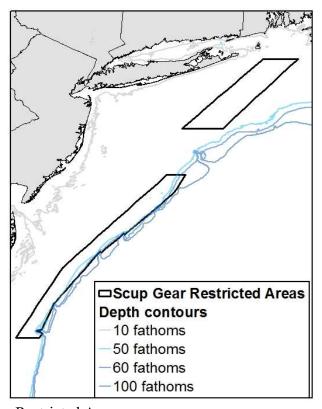


Figure 6: The Scup Gear Restricted Areas.

### Recreational Fishery

Scup are a popular recreational fish and are managed on a coastwide basis in federal waters. Federal waters measures remained unchanged from 2015-2021. Measures were then restricted for the 2022 fishing year, and again for 2023 (Table 9). In 2024, the open season in federal waters was adjusted back to a year-round open season; however, given the minimal expected harvest that occurs from January-March of each year in federal waters this change was expected to have minimal to no

<sup>&</sup>lt;sup>6</sup> A copy of the Draft 2023 Commercial Discard Report and GRA Analysis can be found here: https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/64c4132b4e00350a49cc85d9/1690571564804/T ab03 Scup+Commercial+Discards+Report.pdf.

<sup>&</sup>lt;sup>7</sup> The Request for Proposal announcement can be found here: <a href="https://www.mafmc.org/newsfeed/2024/deadline-extended-may-24-request-for-proposals-for-collaborative-strategies-to-adapt-scup-gear-restricted-areas-gra-to-changing-ocean-conditions">https://www.mafmc.org/newsfeed/2024/deadline-extended-may-24-request-for-proposals-for-collaborative-strategies-to-adapt-scup-gear-restricted-areas-gra-to-changing-ocean-conditions.</a>

impact on overall recreational harvest. State waters recreational measures were restricted for 2023 and 2024, these measures are shown in Table 10 and Table 11.

Framework 17 implemented a new process for setting recreational measures called the Percent Change Approach. Unlike the previous process, recreational measures no longer aim to achieve the RHL. Instead, measures aim to achieve a different level of harvest, which varies based on estimated harvest in the upcoming year(s) compared to the RHL as well as biomass compared to target level. The target level of harvest is defined as a percentage change from the expectation of harvest in the upcoming year(s) if the current measures were to remain in place.<sup>8</sup>

Following the Percent Change Approach, for 2023, state waters measures were restricted with the goal of achieving 12.88 million pounds of coastwide harvest. The final 2023 MRIP landings estimate is 11.91 million pounds, about 7.5% less than the target of 12.88 million pounds. Despite 2023 landings being about 28% higher than the RHL, it is important to note that under the Percent Change Approach, measures do not aim to achieve the RHL, they instead aimed to achieve the 2023 target of 12.88 million pounds of harvest (Table 12).

**Table 9:** Federal recreational measures for scup, 2008-2024.

Regs	2008- 2009	2010- 2011	2012	2013	2014	2015- 2021	2022	2023	2024
Min size (total length)	10.5 in.	10.5 in.	10.5 in.	10 in.	9 in.	9 in.	10 in.	10 in.	10 in.
Possession limit	15	10	20	30	30	50	50	40	40
Open season	Jan 1 – Feb 28 & Oct 1– Oct 31	Jun 6 – Sept 26	Jan 1 – Dec 31	May 1 – Dec 31	Jan 1 – Dec 31				

13

<sup>&</sup>lt;sup>8</sup> Additional information on the Percent Change Approach is available at <a href="https://www.mafmc.org/actions/hcr-framework-addenda">https://www.mafmc.org/actions/hcr-framework-addenda</a>.

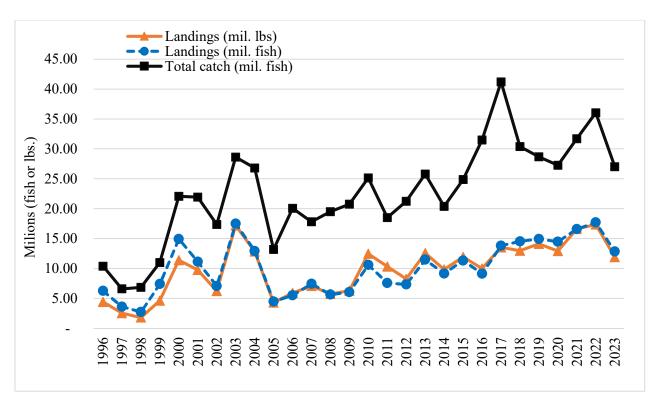
**Table 10:** State recreational fishing measures for scup in 2023.

Table 10: State recreational		-	). 	
State	Minimum Size (inches)	Possession Limit	Open Season	
MA (private vessel)	10.5	30 fish	M 1 D 1 31	
MA (shore)	9.5		May 1 – December 31	
	10.5	40 fish	May 1 – June 30	
MA (party/charter)	10.5	30 fish	July 1 – December 31	
RI (private vessel)	10.5	20 7 1		
RI (shore)	9.5	30 fish	May 1 – December 31	
RI (party/charter)	10.5"	30 fish	May 1 – August 31; November 1 – December 31	
,		40 fish	September 1 – October 31	
CT (private vessel)	10.5	20 % 1	M 1 D 1 21	
CT (shore)	9.5	30 fish	May 1 – December 31	
CT (Authorized For-Hire	10.5	30 fish	May 1 – August 31; November 1 – December 31	
Monitoring Program Vessels)	10.5	40 fish	September 1 – October 31	
NY (private vessel)	10.5			
NY (shore)	9.5	30 fish	May 1 – December 31	
NY (party/charter)	10.5	30 fish	May 1 – August 31; November 1 – December 31	
		40 fish	September 1 – October 31	
NJ	10	30 fish	August 1 – December 31	
DE		40.5 1		
MD		40 fish		
VA	9	30 fish	January 1 – December 31	
NC, North of Cape Hatteras (N of 35° 15'N)		40 fish	tandary 1 December 31	

**Table 11:** State recreational fishing measures for scup in 2024.

State	Mode	Size Limit	Possession Limit	Open Season	
	Shore	9.5"	20 figh	May 1 December 21	
3.47.4	Private	11"	30 fish	May 1 – December 31	
MA	L II.	11"	40 fish	May 1 – June 30	
	For-Hire		30 fish	July 1 – December 31	
	Shore	9.5"	20 €-1	Mary 1 December 21	
RI	Private	11"	30 fish	May 1 – December 31	
TXI			30 fish	May 1 – August 31	
	For-Hire	11"	40 fish	September 1 – October 31	
			30 fish	November 1 – October 31	
	Shore	9.5"	30 fish	May 1 – December 31	
	Private	11"	30 11811	Way 1 – December 31	
CT			30 fish	May 1 – August 31	
	For-Hire	11"	40 fish	September 1 – October 31	
			30 fish	November 1 – December 31	
	Shore	9.5"			
NY	Private	11"	30 fish	May 1 – December 31	
IN I			30 fish	May 1 – August 31	
	For-Hire	11"	40 fish	September 1 – October 31	
			30 fish	November 1 – December 31	
NJ	All	10"	30 fish	January 1 – June 30	
110	7111	10	30 11311	September 1 – December 31	
DE					
MD					
1.22					
VA	A 11	0"	20 6 1		
NC North of Cape Hatteras (N of 35°	All	9"	30 fish	January 1 – December 31	

From 1996-2023, MRIP estimates indicate that recreational catch of scup (in number of fish) peaked in 2017 at 41.20 million scup and landings peaked in 2022 with an estimated 17.71 million scup landed by recreational fishermen from Maine through North Carolina. Recreational catch was lowest in 1997 and 1998 when an estimated 6.60 and 6.86 million scup were caught and 3.64 and 2.74 million scup were landed, respectively. In 2023, recreational anglers from Maine through North Carolina caught an estimated 27.01 million scup and landed 12.85 million scup (about 11.91 million pounds; Figure 7; Table 12).



**Figure 7:** MRIP estimates of recreational scup landings in numbers of fish and pounds and catch in numbers of fish, ME - NC, 1996-2023.

**Table 12:** Scup recreational landings, dead discards, and catch compared to the RHL, recreational dead discards, and recreational ACL, 2015-2023. Information is provided in the "old" MRIP units for 2015-2019, and in the "new" MRIP units for 2020-2023. For scup, ACLs and RHLs did not account for the revised MRIP data until 2020. Therefore, overage/underage evaluations must be based in the old MRIP units through 2019 and the new MRIP units starting in 2020. All values are in millions of pounds.

Year	Version of MRIP data used	Rec. landings <sup>a</sup>	RHL	RHL over/ under	Rec. dead disc. <sup>a</sup>	Rec. dead catch	ACL	ACL over/ under
2015	Old	4.41	6.8	-35%	1.28	5.69	7.43	-23%
2016	MRIP (pre-revision)	4.26	6.09	-30%	1.9	6.16	6.84	-10%
2017		5.42	5.5	-1%	2.38	7.8	6.25	25%
2018		5.61	7.37	-24%	1.42	7.03	8.61	-18%
2019	Old MRIP (provided by NEFSC)	5.41	7.37	-27%	1.23	6.64	8.01	-17%
2020 <sup>b</sup>	New MRIP (post- revision)	12.91	6.51	98%	1.23	14.14	7.87	80%
2021		16.62	6.07	174%	1.44	18.06	7.66	136%
2022		17.36	6.08	186%	1.68	19.04	7.06	170%
2023		11.91	9.27	с	1.24	13.15	10.39	27%
2024			13.18				15.34	

<sup>&</sup>lt;sup>a</sup> Recreational harvest data from MRIP; recreational dead discards from NEFSC 2023 MTA and S. Truesdale, personal communication, June 2024.

Vessels carrying passengers for hire in federal waters must obtain a federal party/charter permit. In 2023, 748 vessels held scup federal party/charter permits. Many of these vessels also held party/charter permits for summer flounder and black sea bass.

Most recreational scup catch occurs in state waters during the warmer months when the fish migrate inshore. Between 2021 and 2023, on average 96% of recreational scup catch (in numbers of fish) occurred in state waters and about 4% occurred in federal waters (Table 13). New York, Connecticut, Rhode Island, Massachusetts, and New Jersey accounted for over 99% of recreational scup harvest in 2023 (Table 14).

<sup>&</sup>lt;sup>b</sup>Recreational harvest estimates for 2020 were impacted by temporary suspension of shoreside intercept surveys due to COVID-19. NMFS used imputation methods to fill gaps in 2020 catch data with data collected in 2018 and 2019. For scup, the 2020 harvest estimate relied on approximately 25% imputed data. For more information on imputation methods see: <a href="https://www.mafmc.org/s/1-2020-Marine-Recreational-Catch-Estimates-QA-52121.pdf">https://www.mafmc.org/s/1-2020-Marine-Recreational-Catch-Estimates-QA-52121.pdf</a>.

<sup>&</sup>lt;sup>c</sup>2023 was the first year recreational measures were set using the Percent Change Approach, as implemented through Framework 17. Under this new process, measures are no longer set with the primary goal of allowing harvest to meet but not exceed the RHL. Instead, 2023 measures were set with the goal of achieving a 10% reduction in harvest compared to the expectation of 2023 harvest if 2022 measures had remained in place. Specifically, the recreational measures implemented in 2023 aimed to achieve a target of 12.88 million pounds of harvest.

About 53% of recreational scup landings (in numbers of fish) in 2023 were from anglers who fished on private or rental boats and about 36% were from anglers fishing from shore. Additionally, about 12% were from anglers fishing on party or charter boats (Table 15).

**Table 13:** Estimated percent of scup recreation landings (in numbers of fish) from state vs. federal waters, Maine through North Carolina, 2014-2023.

Year	State waters	Federal waters
2014	97%	3%
2015	99%	1%
2016	95%	5%
2017	97%	3%
2018	96%	4%
2019	97%	3%
2020	90%	10%
2021	96%	4%
2022	97%	3%
2023	95%	5%
2014-2023 average	96%	4%
2021-2023 average	96%	4%

**Table 14:** State contribution (as a percentage) of total recreational landings of scup (in numbers of fish), from Maine through North Carolina, 2021-2023.

State	2021	2022	2023	2021-2023 average
Maine	0%	0%	0%	0%
New Hampshire	0%	0%	0%	0%
Massachusetts	22%	12%	13%	16%
Rhode Island	17%	17%	17%	17%
Connecticut	17%	11%	18%	15%
New York	42%	59%	51%	51%
New Jersey	1%	1%	1%	1%
Delaware	0.01%	0.01%	0.05%	0%
Maryland	0.00%	0.01%	0%	0%
Virginia	1%	0%	0%	0%
North Carolina	0.02%	0.02%	0.03%	0%

**Table 15:** Percentage of scup recreational landings (in numbers of fish) by fishing mode, from Maine through North Carolina, 2014 - 2023. Due to rounding, the annual percentages may not equal 100% exactly.

Year	Private/rental	Shore	Party/charter	Total number (number of fish)
2014	67%	20%	12%	9,171,030
2015	77%	17%	6%	11,333,588
2016	56%	34%	10%	9,143,578
2017	65%	24%	11%	13,825,018
2018	48%	43%	9%	14,546,551
2019	56%	29%	15%	14,954,161
2020	62%	28%	10%	14,498,808
2021	73%	18%	9%	16,595,605
2022	67%	25%	8%	17,714,796
2023	53%	36%	12%	12,847,113
2014-2023 average	62%	27%	10%	13,463,025
2021-2023 average	64%	26%	9%	15,719,171

A species guild approach was used to identify other species commonly caught with scup in the recreational fishery from 2017-2021 (2021 MRIP data used here were preliminary and excluded wave 6). Black sea bass, sea robins, summer flounder, bluefish, and tautog were highly correlated with recreational scup catch. (J. Brust, personal communication March 2022).

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