ATLANTIC STATES MARINE FISHERIES COMMISSION

REVIEW OF THE INTERSTATE FISHERY MANAGEMENT PLAN

FOR SCUP
(Stenotomus chrysops)

2016 FISHING YEAR

Prepared by the Plan Review Team

Approved by the Summer Flounder, Scup, and Black Sea Bass Management Board
February 2018
Review of the Interstate
Fishery Management Plan for Scup for the 2016 Fishing Year

I. Status of the Fishery Management Plan

States with a declared interest in the Scup FMP are Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, and North Carolina. The Commission’s Summer Flounder, Scup, and Black Sea Bass Management Board serves as the species management board, and the Demersal Species Committee guides plan development for the MAFMC. The Summer Flounder, Scup, and Black Sea Bass Technical Committee addresses technical issues. Industry advice is solicited through the Scup and Black Sea Bass Advisory Panel, and annual review and monitoring is the responsibility of the Scup Plan Review Team.

Atlantic States Marine Fisheries Commission (ASMFC or Commission) management of scup was initiated as one component of a multi-species Fishery Management Plan (FMP) addressing summer flounder, scup and black sea bass. The Commission approved the FMP for scup in March 1996. Amendment 12 to the Summer Flounder, Scup, and Black Sea Bass FMP, which established revised overfishing definitions, identification and description of essential fish habitat, and defined the framework adjustment process, was approved by the Commission in October 1998.

The FMP included a seven-year plan for reducing fishing effort and restoring the stock. The primary concerns were excessive discarding of scup and near collapse of the stock. Management measures implemented in the first year of the plan (1996) included: dealer and vessel permitting and reporting, 9-inch commercial minimum size, 4-inch mesh restriction for vessels retaining over 4,000 pounds of scup, and a 7-inch recreational minimum size. The biological reference point to define overfishing when the plan was initially developed was $F_{\text{MAX}}$, or $F=0.25$. To allow flexibility in addressing unforeseen conditions in the fishery, the plan contained provisions that allow implementation of time and area closures. The plan also specified the option for changes in the recreational minimum size and bag limit, or implementation of a seasonal closure on an annual basis. The original FMP also implemented an annual coastwide Total Allowable Catch (TAC) limit, effective in 1997, from which an annual commercial quota and recreational harvest limit would be derived.

Addendum 1 to the Summer Flounder, Scup, and Black Sea Bass FMP established the quota management procedure for management and distribution of the annual coastwide commercial quota. Addendum 1 also details the state-by-state quota system for the summer period (May through October) that was implemented in 1997. Each state receives a share of the summer quota based on historical commercial landings from 1983-1992.

In June 1997, the Commonwealth of Massachusetts filed a lawsuit against the Secretary of Commerce stating that the historical data used to determine the quota shares underestimated the commercial landings of scup. Massachusetts also stated that the resulting quota share
discriminated against Commonwealth of Massachusetts residents. On April 27, 1998, the U.S. District Court voided the state-by-state quota allocations for the summer quota period in the federal fishery management plan, and ordered the Secretary of Commerce to promulgate a regulation that sets forth state-by-state quotas in compliance with the National Standards. The Summer Flounder, Scup, and Black Sea Bass Management Board developed three Emergency Rules to address the quota management during the summer quota period during 1999, 2000 and 2001.

Amendment 12 to the Summer Flounder, Scup and Black Sea Bass FMP established a biomass threshold for scup based on the maximum value of the 3-year moving average of the Northeast Fisheries Science Center spring bottom trawl survey index of spawning stock biomass. The Amendment stipulated that the scup stock was considered overfished when the spawning stock biomass index fell below this value. Amendment 12 also defined overfishing for scup to occur when the fishing mortality rate exceeded the threshold fishing mortality. Subsequent addenda modified the reference points.

In 2002, the Board developed Addendum V to the FMP in order to avoid the necessity of developing annual Emergency Rules for summer period quota management. Addendum V established state shares of the summer period quota based on historical commercial landings from 1983-1992, including additional landings from Massachusetts added to the National Marine Fisheries Service (NMFS) database in 2000. State shares implemented by this addendum will remain in place until the Board takes direct action to change them.

Another significant change to scup management occurred with the approval of Addendum VII in February 2002. This document established a state specific management program for the states of Massachusetts through New York for the 2002 recreational scup fishery based on the average landings (in number of fish) for 1998-2001. Due to the extremely limited data available, the Board developed specific management measures for the states of New Jersey, Delaware, Maryland, Virginia, and North Carolina. The addendum had no application after 2002. The same addendum language was used verbatim to set management measures for the states of Massachusetts through New York for 2003 through Addendum IX.

Addendum XIX, approved in August 2007, broadened the descriptions of stock status determination criteria contained within the Summer Flounder, Scup, and Black Sea Bass FMP to allow for greater flexibility in those definitions, while maintaining objective and measurable criteria for identifying when stocks are overfished. It established acceptable categories of peer-review for stock status determination criteria. When these specific peer-review metrics are met and new or updated information is available, the new or revised stock status determination criteria may be incorporated by the Commission directly into the annual management measures for each species.

Addendum XX sets policies to reconcile quota overages to address minor inadvertent quota overages. It was approved in November 2009. It streamlines the quota transfers process and establishes clear policies and administrative protocols to guide the allocation of transfers from
states with underages to states with overages. It also allows for quota transfers to reconcile quota overages after the year’s end.

II. Status of the Stock

The most recent stock assessment update for scup took place in 2017. Based on information through 2016, the scup stock was not overfished or experiencing overfishing relative to the reference points defined in the 2015 SAW 60 benchmark assessment. The stock assessment model for scup changed in 2008 from a simple index-based model to a complex statistical catch at age model. The model now incorporates a broader range of fishery and survey data than was used previously.

Since 1984, recruitment (i.e., the number of age 0 scup) estimates are influenced mainly by the fishery and survey catches-at-age, and averaged 121 million fish during 1984-2016. The 1999, 2006, and 2015 year classes are estimated to be the largest of the time series, at 222, 222, and 252 million age 0 fish. Below average recruitment occurred in 2012-2014 and in 2016 (65 million fish).

The fishing mortality reference point is $F_{MSY} = F_{40\%} = 0.220$. $F_{40\%}$ is the rate of fishing that will result in 40% of the spawning potential of an unfished stock. The spawning stock biomass (SSB) target is $SSB_{40\%} = 87,302$ mt or 192.47 million pounds. The 2017 stock assessment update indicates the $F$ in 2016 was $0.139$ and $SSB$ was $397$ million pounds, therefore overfishing is not occurring and the stock is rebuilt.

III. Status of the Fishery

Commercial scup landings, which had declined by over 33% to 13.1 million pounds in 1988 from peak landings (approximately 49 million lbs) in 1960, increased to 15.6 million pounds in 1991, then steadily dropped to the lowest value in the time series, 2.7 million pounds in 2000. Since 2001, commercial landings have continued to increase nearly every year to about 17.87 million pounds in 2013. From 2011-2015 commercial landings varied, ranging from 14.88 million lbs in 2012, to 17.87 million pounds in 2013. In 2016, commercial landings were 15.74 million lbs, about 77% of the commercial quota (Table 3). Since 1979 approximately 80% of the commercial landings have been landed in Rhode Island (38%), New Jersey (26%), and New York (16%). Otter trawl is the principal gear, accounting for 65%-90% of commercial landings since 1979.

The recreational fishery for scup is significant, with the greatest proportion of the catches taken in states of Massachusetts through New York. Since 1981, recreational harvest has averaged 32% of total landings (commercial and recreational). From 2005 to 2015, recreational harvest has ranged from 2.69 million lbs in 2005 to 5.11 million lbs in 2013. In 2016, recreational harvest was 4.26 million lbs, about 70% of the recreational harvest limit (Table 4).

IV. Status of Assessment Advice

The 2015 Benchmark Stock Assessment indicated that while the scup biomass is over 200% of the biomass target, the trend moving forward is likely a decreased from a recent year’s peak. As such, the Board and Council moved to decrease commercial quotas and recreational harvest
limits from 2015 levels in 2016 and 2017 based on the biomass projections outlined in the stock assessment. The 2017 Stock Assessment Update indicated the biomass still remains 200% above the biomass target and resource is not experiencing overfishing. Quotas were increased for 2018 and 2019. The Board and Council originally set these quotas based on the 2015 numbers and will update them based on the 2017 update.

V. Status of Research and Monitoring

Commercial landings data are collected by the NMFS Vessel Trip Report system and by state reporting systems. The NEFSC sea sampling program collects commercial discard information. Biological samples (age, length) from the commercial fishery are collected through the NEFSC weigh out system and by the state of North Carolina. Recreational landings and discard information is obtained through the Marine Recreational Information Program. The Commonwealth of Massachusetts collected length frequency information for the recreational fishery in 2001 as part of a federally funded effort to monitor the recreational and commercial directed fisheries. One non-directed fishery assumed to have substantial scup bycatch was also monitored. This monitoring effort decreased substantially in 2002 as the study received funding for one year. Fishery independent abundance indices are available from surveys conducted by the NEFSC, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, and the Virginia Institute of Marine Science. All surveys, with the exception of Delaware’s, are included in the species stock assessment.

VI. Management Measures and Developing Issues

Addendum 1 to the Scup FMP specifies the commercial quota management scheme. The annual coastwide quota is divided among three periods. The Winter I period is January through April, the summer period is May through October, and November and December make up Winter II. During the winter periods, the quota is coastwide and is limited by federal trip limits. The summer allocation is divided into state shares. There is no federal possession limit during the summer period; however, various state possession limits are in effect. When a winter period allocation is landed, the states and NMFS must prohibit landings. When a state lands its summer allocation it is expected to close its fishery. The quota, as well as accompanying trip limits, will be set annually. [Note: The Federal FMP currently contains a coastwide commercial quota during the summer period due to the court decision described in Section I]. The Board expressed interest in exploring alternative quota programs for scup. In December 2015 the Board recommended that the Technical Committee develop an analysis to support future considerations related to possibly changing the length of each of the three quota periods. Addendum XXIX was initiated in fall 2016 and was approved by the Board in May 2017. The Addendum shortens the length of the commercial scup summer period and extends the length of the winter II period.
COMMERCIAL FISHERY for 2016

The following management measures may change annually.

Minimum size of possession: 9” Total Length

Minimum mesh: Otter trawls must have a minimum mesh size of 5” for the first 75 meshes from the terminus of the net and a minimum mesh size of 5” throughout the net for codends constructed with fewer than 75 meshes.

Threshold to Trigger Minimum Mesh Requirements: Trawl vessels are subject to the minimum mesh requirements if possessing 1,000 pounds or more of scup from November 1 through April 30, or 200 pounds or more of scup from May 1 through October 31.**

Maximum roller rig trawl roller diameter: 18”

Pot and trap escape vents: 3.1” round, 2.25” square

Pot and trap degradable fastener provisions: a) untreated hemp, jute, or cotton string 3/16” (4.8 mm) or smaller; b) magnesium alloy timed float releases or fasteners; c) ungalvanized, uncoated iron wire of 0.094” (2.4mm) or smaller

Commercial quota: 20.47 million pounds (adjusted for overages)

ASMFC Summer Quota: 7,972,176 lbs (State by State Shares in Table 1)

Winter I and II Quotas and landing limits: Winter I = 9,232,987 lbs; 50,000 lb trip limit, 1,000 lbs trip limits when the quota reaches 80%; Winter II = 3,262,554 lbs, 12,000 pounds initial possession limits; 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

**Starting in 2016, the threshold to trigger minimum mesh requirements increased from 500 pounds to 1,000 pounds.

The following required measures are not subject to annual adjustment:

Vessel and dealer permitting requirements: States are required to implement a permit for fishermen fishing exclusively in state waters, and for dealers purchasing exclusively from such fishermen. In addition, states are expected to recognize federal permits in state waters, and are encouraged to establish a moratorium on entry into the fishery.

Vessel and dealer reporting requirements: States are required to implement reporting requirements for state permitted vessels and dealers and to report landings from state waters to NMFS.

Scup pot or trap definition: A scup pot or trap will be defined by the state regulations that apply to the vessels principal port of landing.

Quota management requirements:

Winter I and II: States are required to implement landing limits as specified annually. States are required to notify state and federal permit holders of initial period landing limits, in-period adjustments, and closures. States are required to prohibit fishing for, and landing of, scup when a period quota has been landed, based on projections by NMFS. States must report landings from state waters to NMFS for counting toward the quota.
Summer: States are required to implement a plan of trip limits or other measures to manage their summer share of the scup quota. States are required to prohibit fishing for, and landing of, scup when their quota share is landed. States may transfer or combine quota shares. States must report all landings from state waters to NMFS for counting toward the state shares.

RECREATIONAL FISHERY for 2016
Addendum IX (2003) established a state-specific management program for Massachusetts through New York (inclusive), and specific management measures for the states of New Jersey, Delaware, Maryland, Virginia, and North Carolina. The states have continued this approach since 2004.

The following measures may change annually: 2016 Recreational Measures
2016 Minimum size, possession limits and seasonal closure: Table 5
2016 Recreational Harvest Limit: 6.09 million pounds

2017 Minimum size, possession limits and seasonal closure: Table 5

OTHER MEASURES
Reporting: States are required to submit an annual compliance report to the Chair of the ASMFC Scup Plan Review Team by June 1 of each year. This report should detail the state’s management program for the current year and establish proof of compliance with all mandatory management measures. It should include landings information from the previous year, and the results of any monitoring or research programs.

De minimis: States having commercial landings during the summer period that are less than 0.1% of the summer period quota are eligible for de minimis consideration. States desiring de minimis classification must make a formal request in writing through the Plan Review Team for review and consideration by the Scup Management Board.

This summary of compliance criteria is intended to serve as a quick reference guide. It in no way alters or supersedes compliance criteria as contained in the Scup FMP and any Amendments thereto.

Compliance Issues
The PRT found compliance issues with two states: Massachusetts did not maintain the 5” minimum diamond mesh size or the threshold to trigger minimum mesh requirements (1,000 lbs 11/1 – 4/30; (mid-year increase to 1,000 lbs effective Nov/Dec 2016); 200 lbs from 5/1 – 10/31), allowing squid mesh (1 7/8”) vessels to retain directed fishery possession limits for scup from April 23 – June 9 (or longer by Director’s declaration). Rhode Island allowed a 4.5” minimum mesh size for the entire net of 4.5” diamond mesh in codend (for large trawl nets), which was below the 5” minimum required. Rhode Island also allowed 2.5” circular escape vents, 2” square escape vents, or 1.375” X 5.75” rectangular escape vents for pots/traps, which were smaller than the required minimum of 3.1” round or 2.25” square vents.
Rhode Island Staff confirmed that its compliance report was inaccurate and that the published minimum mesh size regulations for the state was 5”, as well as having in place the correct escape vents size of 3.1”. Massachusetts provided documentation indicating that commonwealth would come back into compliance before the start of the 2018 fishing season for the small-mesh squid fishery.

**De Minimis**

The state of Delaware requests *de minimis* status. The PRT notes Delaware meets the *de minimis* requirements.

**VII. State Compliance with Required Measures**

Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, and North Carolina are required to comply with the provisions of the Scup FMP. The PRT found Massachusetts to be out of compliance with the minimum mesh size and trigger for minimum mesh size requirements. The PRT also found Rhode Island to be out of compliance with the minimum mesh and escape vent size requirements. All other states implemented regulations in compliance with the requirements approved by the Board.

**Scup FMP Compliance Schedule**

**Commercial Fishery**

<table>
<thead>
<tr>
<th>Management Measures</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Ability to implement and enforce period landing limits</td>
<td>1/1/97</td>
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<tr>
<td>Ability to notify permit holders of landing limits and closures</td>
<td>1/1/97</td>
</tr>
<tr>
<td>Ability to close the summer fishery once the state share is harvested</td>
<td>5/1/97</td>
</tr>
<tr>
<td>Ability to close the winter fisheries once the period quota is harvested</td>
<td>5/1/97</td>
</tr>
<tr>
<td>9” total length minimum size limit</td>
<td>6/30/96</td>
</tr>
<tr>
<td>Minimum mesh size of 5” diamond mesh throughout codend</td>
<td>1/1/05</td>
</tr>
<tr>
<td>Pot and trap escape vents (min 3.1” square/rectangular; each side at least 2.25” in length), degradable fasteners</td>
<td>6/30/96</td>
</tr>
<tr>
<td>Roller diameter restriction</td>
<td>6/30/96</td>
</tr>
<tr>
<td>Vessel permit and reporting requirements, state</td>
<td>1/1/97</td>
</tr>
<tr>
<td>Dealer permit and reporting requirements, state</td>
<td>1/1/97</td>
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**Recreational Fishery**

<table>
<thead>
<tr>
<th>Management Measures</th>
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<tr>
<td>Size limit</td>
<td>6/30/96</td>
</tr>
<tr>
<td>Possession limit</td>
<td>6/30/96</td>
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</table>

**General**

| States submit annual monitoring and compliance report | 6/1 annually |

**Annual Specifications**

<table>
<thead>
<tr>
<th>Commercial</th>
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<tbody>
<tr>
<td>Winter I Landing</td>
<td>11/1/05</td>
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<tr>
<td>Limits</td>
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<tr>
<td>Winter II Landing</td>
<td>11/1/05</td>
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<td>Limits</td>
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**Recreational**

<table>
<thead>
<tr>
<th>Massachusetts– New York (inclusive)</th>
<th></th>
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<tbody>
<tr>
<td>State specific minimum size, possession limit and season</td>
<td>3/16</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>New Jersey – North Carolina (inclusive)</th>
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</thead>
<tbody>
<tr>
<td>Federal coastwide minimum size, possession limit and season</td>
<td>12/15</td>
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### Table 1. 2016. State by State Quota (Summer Period)

<table>
<thead>
<tr>
<th>State</th>
<th>Share</th>
<th>2016 ASMFC Final Quota</th>
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<tbody>
<tr>
<td>ME</td>
<td>0.00121</td>
<td>9,646</td>
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<tr>
<td>MA</td>
<td>0.21585</td>
<td>1,720,842</td>
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<td>RI</td>
<td>0.56189</td>
<td>4,479,580</td>
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<td>CT</td>
<td>0.03154</td>
<td>251,422</td>
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<td>NY</td>
<td>0.15823</td>
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<td>NJ</td>
<td>0.02916</td>
<td>232,504</td>
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<tr>
<td>MD</td>
<td>0.00012</td>
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<tr>
<td>VA</td>
<td>0.00165</td>
<td>13,154</td>
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<tr>
<td>NC</td>
<td>0.00025</td>
<td>1,985</td>
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<tr>
<td>Total</td>
<td>0.99991</td>
<td>7,971,553</td>
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Table 2. Summary of scup management measures, 2006-2016.

<table>
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</thead>
<tbody>
<tr>
<td>ABC (m lbs)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>40.88</td>
<td>38.71</td>
<td>35.99</td>
<td>33.77</td>
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<tr>
<td>TAC (m lbs)</td>
<td>19.79</td>
<td>13.97</td>
<td>9.9</td>
<td>15.54</td>
<td>17.09</td>
<td>31.92</td>
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<tr>
<td>Commercial ACL (m lbs)</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>31.89</td>
<td>30.19</td>
<td>28.07</td>
<td>26.35</td>
<td>24.26</td>
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<tr>
<td>Commercial quota-adjusted (m lbs)*</td>
<td>11.93</td>
<td>8.9</td>
<td>5.24</td>
<td>8.37</td>
<td>10.68</td>
<td>20.36</td>
<td>27.91</td>
<td>23.53</td>
<td>21.95</td>
<td>21.23</td>
<td>20.47</td>
</tr>
<tr>
<td>Commercial landing (m lbs)</td>
<td>9.00</td>
<td>9.24</td>
<td>5.22</td>
<td>8.20</td>
<td>10.73</td>
<td>15.03</td>
<td>14.88</td>
<td>17.87</td>
<td>15.93</td>
<td>15.85</td>
<td>15.76</td>
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<tr>
<td>Recreational ABC (m lbs)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8.99</td>
<td>8.52</td>
<td>7.92</td>
<td>7.43</td>
<td>6.84</td>
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<tr>
<td>Recreational harvest limit-adjusted (m lbs)*</td>
<td>4.15</td>
<td>2.74</td>
<td>1.83</td>
<td>2.59</td>
<td>3.01</td>
<td>5.74</td>
<td>7.55</td>
<td>7.55</td>
<td>7.03</td>
<td>6.8</td>
<td>6.09</td>
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<tr>
<td>Recreational landing</td>
<td>3.72</td>
<td>4.56</td>
<td>3.79</td>
<td>3.23</td>
<td>5.97</td>
<td>3.67</td>
<td>4.17</td>
<td>5.11</td>
<td>4.12</td>
<td>4.61</td>
<td>4.26</td>
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<tr>
<td>Commercial fish size (in)</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
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<tr>
<td>Min. mesh size (in, diamond)</td>
<td>5</td>
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<tr>
<td>Mesh threshold</td>
<td>500/</td>
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<td>500/</td>
<td>500/</td>
<td>500/</td>
<td>1,000/200</td>
</tr>
</tbody>
</table>

*2006-2014 commercial quotas and recreational harvest limits were adjusted for the Research Set Aside (RSA) program. The RSA program was suspended for 2015 and beyond.
Table 3. Scup commercial landings by state 2006-2016 in pounds.
Source: ACCSP. 2015-2016. Commercial Landings Summaries (Dealer Reports) - Confidential; generated by J. Kuesel; using ACCSP Data Warehouse, Arlington, VA. & State Compliance Reports (October 2017)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>MA</td>
<td>1,088,148</td>
<td>1,104,316</td>
<td>527,325</td>
<td>718,751</td>
<td>1,030,688</td>
<td>1,243,810</td>
<td>2,005,268</td>
<td>1,094,975</td>
<td>1,185,816</td>
<td>1,380,262</td>
<td>1,535,947</td>
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<tr>
<td>RI</td>
<td>3,671,250</td>
<td>3,892,671</td>
<td>2,133,001</td>
<td>1,785,994</td>
<td>4,298,595</td>
<td>6,335,391</td>
<td>6,309,321</td>
<td>4,689,540</td>
<td>6,932,462</td>
<td>6,793,853</td>
<td>6,815,227</td>
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<tr>
<td>CT</td>
<td>297,912</td>
<td>255,884</td>
<td>283,101</td>
<td>203,607</td>
<td>323,757</td>
<td>644,030</td>
<td>905,060</td>
<td>1,194,949</td>
<td>811,106</td>
<td>983,041</td>
<td>946,182</td>
</tr>
<tr>
<td>NY</td>
<td>2,305,161</td>
<td>2,280,112</td>
<td>1,203,661</td>
<td>1,845,908</td>
<td>2,689,443</td>
<td>3,542,538</td>
<td>4,306,621</td>
<td>4,407,231</td>
<td>3,190,433</td>
<td>3,174,868</td>
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<tr>
<td>NJ</td>
<td>1,392,868</td>
<td>1,575,144</td>
<td>773,829</td>
<td>1,528,545</td>
<td>1,550,249</td>
<td>1,966,479</td>
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<td>2,332,900</td>
</tr>
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<td>0</td>
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<td>1</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>52</td>
</tr>
<tr>
<td>MD</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>9,000</td>
<td>27,183</td>
<td>54,229</td>
<td>8,263</td>
<td>--</td>
<td>230,104</td>
<td>25,892</td>
<td>53,535</td>
</tr>
<tr>
<td>VA</td>
<td>80,292</td>
<td>22,579</td>
<td>95,939</td>
<td>211,576</td>
<td>371,376</td>
<td>620,480</td>
<td>339,868</td>
<td>913,113</td>
<td>660,324</td>
<td>509,334</td>
<td>441,257</td>
</tr>
<tr>
<td>NC</td>
<td>139,420</td>
<td>66,856</td>
<td>205,703</td>
<td>244,337</td>
<td>102,745</td>
<td>308,907</td>
<td>4,098</td>
<td>28,394</td>
<td>159,930</td>
<td>229,696</td>
<td>111,901</td>
</tr>
<tr>
<td>Total</td>
<td>9,065,404</td>
<td>9,259,713</td>
<td>5,222,559</td>
<td>6,547,718</td>
<td>10,394,036</td>
<td>14,715,873</td>
<td>14,857,031</td>
<td>14,361,289</td>
<td>15,095,770</td>
<td>16,078,526</td>
<td>15,742,825</td>
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</tbody>
</table>

**2016 Landings are still preliminary**
Table 4. Scup recreational landings, 2006-2016, by state in weight.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MA</td>
<td>218,996</td>
<td>75,860</td>
<td>150,031</td>
<td>874,952</td>
<td>1,023,248</td>
<td>836,156</td>
<td>1,795,634</td>
<td>1,850,909</td>
<td>1,634,104</td>
<td>1,286,537</td>
<td>1,051,147</td>
</tr>
<tr>
<td>RI</td>
<td>470,286</td>
<td>353,450</td>
<td>632,839</td>
<td>139,576</td>
<td>398,178</td>
<td>567,697</td>
<td>497,505</td>
<td>816,837</td>
<td>975,812</td>
<td>591,693</td>
<td>606,528</td>
</tr>
<tr>
<td>CT</td>
<td>107,479</td>
<td>108,528</td>
<td>115,821</td>
<td>359,845</td>
<td>1,346,631</td>
<td>1,194,680</td>
<td>921,010</td>
<td>2,126,257</td>
<td>561,182</td>
<td>497,495</td>
<td>843,267</td>
</tr>
<tr>
<td>NY</td>
<td>1,677,998</td>
<td>1,596,391</td>
<td>1,450,861</td>
<td>1,460,314</td>
<td>1,990,339</td>
<td>714,789</td>
<td>592,238</td>
<td>978,444</td>
<td>1,132,448</td>
<td>2,211,709</td>
<td>1,533,402</td>
</tr>
<tr>
<td>NJ</td>
<td>241,567</td>
<td>86,073</td>
<td>72,697</td>
<td>141,861</td>
<td>610,660</td>
<td>42,223</td>
<td>113,332</td>
<td>100,419</td>
<td>45,847</td>
<td>29,501</td>
<td>210,727</td>
</tr>
<tr>
<td>DE</td>
<td>319</td>
<td>2,365</td>
<td>1,338</td>
<td>821</td>
<td>0</td>
<td>40</td>
<td>86</td>
<td>0</td>
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<td>589</td>
<td>1</td>
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<tr>
<td>MD</td>
<td>58,386</td>
<td>157,360</td>
<td>89,729</td>
<td>36</td>
<td>11</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>204</td>
<td>126*</td>
</tr>
<tr>
<td>VA</td>
<td>0</td>
<td>586</td>
<td>3,920</td>
<td>527</td>
<td>5,284</td>
<td>10,413</td>
<td>1,425</td>
<td>1,238</td>
<td>0</td>
<td>1,846</td>
<td>14,157*</td>
</tr>
<tr>
<td>NC</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>27</td>
<td>148</td>
<td>0</td>
<td>769</td>
<td>87</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>2,775,031</td>
<td>2,380,613</td>
<td>2,517,236</td>
<td>2,977,932</td>
<td>5,374,351</td>
<td>3,366,032</td>
<td>3,921,378</td>
<td>5,874,104</td>
<td>4,350,197</td>
<td>4,619,661</td>
<td>4,259,355</td>
</tr>
</tbody>
</table>

*State estimates for Maryland and Virginia had PSE>50.
<table>
<thead>
<tr>
<th>State</th>
<th>Minimum Size (inches)</th>
<th>Possession Limit</th>
<th>Open Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts For Hire</td>
<td>10</td>
<td>45 fish from May 1- June 30; 30 fish from July 1- Dec 31</td>
<td>May 1- December 31</td>
</tr>
<tr>
<td>Private Angler</td>
<td>10</td>
<td>30 fish; private vessels with 6 or more persons aboard are prohibited from possessing more than 150 scup per day</td>
<td>May 1- December 31</td>
</tr>
<tr>
<td>Rhode Island For Hire</td>
<td>10</td>
<td>30 fish from May 1-Aug 31 and Nov 1-Dec 31; 45 fish from Sept 1-Oct 31</td>
<td>May 1- December 31</td>
</tr>
<tr>
<td>Private Angler</td>
<td>10; and 9” or greater for shore mode at 3 designated sites</td>
<td>30 fish</td>
<td>May 1- December 31</td>
</tr>
<tr>
<td>Connecticut For Hire</td>
<td>10</td>
<td>30 fish from May 1-Aug 31 and Nov 1-Dec 31; 45 fish from Sept 1-Oct 31</td>
<td>May 1- December 31</td>
</tr>
<tr>
<td>Private Angler</td>
<td>10; and 9” for shore mode at 46 designated sites</td>
<td>30 fish</td>
<td>May 1- December 31</td>
</tr>
<tr>
<td>New York For Hire</td>
<td>10</td>
<td>30 fish from May 1-Aug 31 and Nov 1-Dec 31; 45 fish from Sept 1-Oct 31</td>
<td>May 1- December 31</td>
</tr>
<tr>
<td>Private Angler</td>
<td>10</td>
<td>30 fish</td>
<td>May 1- December 31</td>
</tr>
<tr>
<td>New Jersey</td>
<td>9</td>
<td>50 fish</td>
<td>Jan 1-Feb 28 and July 1 – December 31</td>
</tr>
<tr>
<td>Delaware</td>
<td>8</td>
<td>50 fish</td>
<td>All Year</td>
</tr>
<tr>
<td>Maryland</td>
<td>8</td>
<td>50 fish</td>
<td>All Year</td>
</tr>
<tr>
<td>Virginia</td>
<td>8</td>
<td>30 fish</td>
<td>All Year</td>
</tr>
<tr>
<td>North Carolina</td>
<td>8</td>
<td>50 fish</td>
<td>All Year</td>
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</table>
Table 6. Scup Landings by period.

<table>
<thead>
<tr>
<th>Year</th>
<th>Period</th>
<th>Commercial Quota</th>
<th>Trip Limits</th>
<th>Landings (lbs)</th>
<th>Date Closed</th>
<th>% of Quota Landed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>Winter I</td>
<td>5,518,367</td>
<td>15,000/1,000</td>
<td>3,684,768</td>
<td>--</td>
<td>66.8</td>
</tr>
<tr>
<td></td>
<td>Summer</td>
<td>4,764,806</td>
<td>--</td>
<td>4,001,662</td>
<td>--</td>
<td>89.5</td>
</tr>
<tr>
<td></td>
<td>Winter II</td>
<td>1,987,718</td>
<td>1,500</td>
<td>1,380,444</td>
<td>--</td>
<td>74.6</td>
</tr>
<tr>
<td>2006</td>
<td>Winter I</td>
<td>3,554,991</td>
<td>30,000/1,000*</td>
<td>3,626,237</td>
<td>--</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>Summer</td>
<td>4,647,569</td>
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<td>3,219,929</td>
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<td>69.3</td>
</tr>
<tr>
<td></td>
<td>Winter II</td>
<td>3,729,581</td>
<td>2,000/1,000</td>
<td>2,115,323</td>
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<td>56.7</td>
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<tr>
<td>2007</td>
<td>Winter I</td>
<td>4,012,895</td>
<td>30,000/1,000*</td>
<td>3,400,934</td>
<td>--</td>
<td>84.8</td>
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<tr>
<td></td>
<td>Summer</td>
<td>3,464,914</td>
<td>--</td>
<td>4,254,987</td>
<td>21-Sep</td>
<td>122.8</td>
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<tr>
<td></td>
<td>Winter II</td>
<td>1,417,991</td>
<td>2,000/1,000</td>
<td>1,590,747</td>
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<td>112.2</td>
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<tr>
<td>2008</td>
<td>Winter I</td>
<td>2,291,699</td>
<td>30,000/1,000*</td>
<td>2,356,716</td>
<td>--</td>
<td>102.8</td>
</tr>
<tr>
<td></td>
<td>Summer</td>
<td>1,437,558</td>
<td>--</td>
<td>1,935,074</td>
<td>16-Jul</td>
<td>134.6</td>
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<tr>
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<td>Winter II</td>
<td>940,948</td>
<td>2,000/1,000</td>
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<tr>
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<td>Winter I</td>
<td>3,777,443</td>
<td>30,000/1,000*</td>
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<tr>
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<td>Summer</td>
<td>2,930,733</td>
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<td>3,072,340</td>
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<tr>
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<tr>
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<td>Winter I</td>
<td>4,964,716</td>
<td>30,000/1,000*</td>
<td>4,740,681</td>
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<tr>
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<td>4,175,206</td>
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<tr>
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</tr>
<tr>
<td>2011</td>
<td>Winter I</td>
<td>6,897,648</td>
<td>50,000/1,000*</td>
<td>5,648,867</td>
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<tr>
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<td>7,930,504</td>
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<td>6,349,749</td>
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<tr>
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<td>3,245,500</td>
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</tr>
<tr>
<td>2012</td>
<td>Winter I</td>
<td>12,589,558</td>
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<td>5,190,370</td>
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<tr>
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<td>10,870,390</td>
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<td>6,326,576</td>
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<tr>
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<td>21.4</td>
</tr>
<tr>
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<td>Winter I</td>
<td>10,613,157</td>
<td>50,000/1,000*</td>
<td>7,431,296</td>
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<tr>
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<td>9,163,877</td>
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<td>7,684,995</td>
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<td>83.9</td>
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<td>2,324,250</td>
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</tr>
<tr>
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<td>Winter I</td>
<td>9,900,000</td>
<td>50,000/1,000*</td>
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<td>8,548,364</td>
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<td>7,146,612</td>
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<tr>
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<td>Winter I</td>
<td>9,578,008</td>
<td>50,000/1,000*</td>
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<td>69.8</td>
</tr>
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<td>8,269,322</td>
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<td>7,703,455</td>
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<td>12,000</td>
<td>1,904,529</td>
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</tr>
<tr>
<td>2016</td>
<td>Winter I</td>
<td>9,232,987</td>
<td>50,000/1,000*</td>
<td>5,873,769</td>
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<td>63.6</td>
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<td>Summer</td>
<td>7,972,176</td>
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<td>7,063,389</td>
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<tr>
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<td>3,262,554</td>
<td>18,000</td>
<td>2,502,146</td>
<td>--</td>
<td>76.7</td>
</tr>
</tbody>
</table>

*The first number indicates the trip limit until 80% of the quota is caught; the second number is the trip limit after that threshold is exceeded.