



Mid-Atlantic Fishery Management Council
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MEMORANDUM

Date: November 3, 2020
To: Chris Moore, Executive Director
From: Karson Coutré, Staff
Subject: Scup Recreational Management Measures for 2021

Background and Summary

The information in this memo is intended to assist the Monitoring Committee, Advisory Panels, the Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission's (Commission's) Summer Flounder, Scup, and Black Sea Bass Management Board (Board) in developing recommendations for scup recreational measures for 2021.

In August 2020, the Council and Board reviewed the previously adopted commercial quota and recreational harvest limit (RHL) for scup for the 2021 fishing year. The Council and Board recommended a change to the implemented catch and landings limits based on the recommendations of the Scientific and Statistical Committee (SSC) which addressed the Council's December 2019 revisions to its risk policy. Based on these revisions, the previously implemented 2021RHL for scup was revised to 6.07 million pounds. The rule implementing the revised 2021 commercial quota and RHL has not yet published but is expected to publish prior to the end of 2020.

Each year, the Monitoring Committee (MC) is tasked with recommending recreational management measures (possession limits, size limits, and seasons) to constrain harvest to the RHL. The Council and Board agree to federal waters recreational management measures for scup for the upcoming year that apply throughout federal waters from Maine through North Carolina. State waters measures will be determined through the Commission process in early 2021.

Typically, staff uses partial year recreational catch data to project harvest through the remainder of the current year. This projection is then compared to the RHL for the upcoming fishing year. This year, as described below, recreational data collection was severely limited by restrictions related to the ongoing Covid-19 pandemic. As a result, no 2020 preliminary harvest estimates are available for scup to project harvest for the rest of the year. Estimated total recreational fishing trips within the management unit are available and described below; however, these estimates are not species specific.

2020 was the first year that scup catch and landings limits and management measures accounted for changes to the recreational data provided by the Marine Recreational Information Program (MRIP). The

revised estimates released in July 2018 are several times higher than the previous estimates for shore and private boat modes, substantially raising the overall scup catch and harvest estimates (e.g., Table 1). The revised MRIP estimates were incorporated into the 2019 scup operational stock assessment. Given challenges associated with transitioning to management based on the new MRIP data, high availability of scup, a very healthy stock status, and catch projections that were below the 2020 ABC, the MC recommended *status quo* recreational measures in state and federal waters for scup in 2020. These considerations discussed by the MC last year remain relevant to 2021 as the summer flounder, scup, and black sea bass allocation amendment is ongoing. As described below, staff recommend that *status quo* recreational measures be maintained for scup in 2021.

Past RHLs and Management Measures

Scup RHLs were first implemented in 1996. Since then, the RHL varied from a low of 1.24 million pounds in 1999 and 2000 to a high of 8.45 million pounds in 2012. As previously stated, the RHL is 6.07 million pounds in 2021 (Table 1).

Until 2002, the recreational scup fishery was managed with coastwide measures as dictated by the FMP. These measures included a common minimum fish size, possession limit, and open season that were implemented in both state and federal waters. Since 2003, the Commission has applied 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. In federal waters, regulations have been unchanged since 2015 and include a minimum size of 9 inches total length, a year-round open season, and a possession limit of 50 scup (Table 1). Management measures in state waters vary by state, mode (e.g., private, for-hire), and season. State waters measures remained unchanged from 2015 through 2017. The states of Massachusetts through New York reduced their recreational minimum size limits and New Jersey extended their recreational fishing season to the full year in 2018. In 2019, Massachusetts through New York increased their party/charter bag limit from 45 to 50 fish during a portion of their open season. Rhode Island through New York extended their recreational fishing season to the full year (opening fishing during waves 1 and 2) and Massachusetts extended theirs by 18 days. All state waters measures remained unchanged from 2019 to 2020 (Table 2).

Table 1: Summary of federal management measures for the scup recreational fishery, 1997-2021. ABCs, TACs, ACLs, RHLs, and harvest are in millions of pounds. Recreational harvest values are for Maine through North Carolina and old and revised MRIP estimates are shown.

Year	TAC/ ABC	Rec. ACL	RHL	Rec. harvest (Old MRIP)	% over/ under RHL	Rec. harvest (New MRIP)	Bag limit (# of fish)	Size limit (inches, total length)	Open season
1997	9.10	-	1.95	1.20	-38%	2.54	-	7	1/1 - 12/31
1998	7.28	-	1.55	0.87	-44%	1.82	-	7	1/1 - 12/31
1999	5.92	-	1.24	1.89	+52%	4.63	-	7	1/1 - 12/31
2000	5.92	-	1.24	5.44	+339%	11.39	-	-	1/1 - 12/31
2001	8.37	-	1.76	4.26	+142%	9.77	50	9	8/15 - 10/31
2002	12.92	-	2.71	3.62	+34%	6.23	20	10	7/1 - 10/2
2003	18.65	-	4.01	8.48	+111%	17.21	50	10	1/1 - 2/28 7/1 - 11/30
2004	18.65	-	3.99	7.28	+82%	12.83	50	10	1/1 - 2/28 9/7 - 11/30
2005	18.65	-	3.96	2.69	-32%	4.30	50	10	1/1 - 2/28 9/18 - 11/30
2006	19.79	-	3.99	3.72	-7%	5.93	50	10	1/1 - 2/28 9/18 - 11/30
2007	13.97	-	2.74	4.56	+66%	7.10	50	10	1/1 - 2/28 9/18 - 11/30
2008	9.9	-	1.83	3.79	+107%	5.76	15	10.5	1/1 - 2/28 9/18 - 11/30
2009	15.54	-	2.59	3.23	+25%	6.28	15	10.5	1/1 - 2/28 10/1 - 10/31
2010	17.09	-	3.01	5.97	+98%	12.48	10	10.5	1/1 - 2/28 10/1 - 10/31
2011	31.92	-	5.74	3.67	-36%	10.32	10	10.5	6/6 - 9/26
2012	40.88	31.89	8.45	4.17	-51%	8.27	20	10.5	1/1 - 12/31
2013	38.71	30.19	7.55	5.37	-29%	12.64	30	10	1/1 - 12/31
2014	35.99	28.07	7.03	4.43	-37%	10.27	30	9	1/1 - 12/31
2015	33.77	26.35	6.8	4.41	-35%	11.93	50	9	1/1 - 12/31
2016	31.11	6.84	6.09	4.26	-30%	10.00	50	9	1/1 - 12/31
2017	28.4	6.25	5.50	5.42	-1%	13.53	50	9	1/1 - 12/31
2018	39.14	8.61	7.37	5.61	-24%	12.98	50	9	1/1 - 12/31
2019	36.43	8.01	7.37	-	-	14.12	50	9	1/1 - 12/31
2020	35.77	7.87	6.51	-	-	-	50	9	1/1 - 12/31
2021	34.81	7.66	6.07	-	-	-	TBD	TBD	TBD

Table 2: State recreational fishing measures for scup in 2019 and 2020.

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	8	50 fish	January 1-December 31

Recreational Catch and Harvest Trends

Since 1981, estimated recreational scup catch fluctuated from a peak of 37.31 million fish in 1986 to a low of 6.60 million fish in 1997. Estimated harvest fluctuated from a high of 14.18 million pounds and 30.43 million fish in 1986 to a low of 1.82 million pounds and 2.74 million fish in 1998. In 2019, recreational harvest was about 14.95 million fish and 14.12 million pounds, and approximately 28.67 million scup were caught, with a release rate of 48% (Table 3). Note that the 2019 MRIP estimates should not be compared to the 2019 RHL as the 2019 RHL did not account for the revisions to the MRIP data.

Table 3: Recreational scup catch and harvest by year, ME - NC, 1981-2019 based on new MRIP estimates. Catch includes landings as well as both live and dead discards. Percent released includes all released fish, including those that survive and those that are presumed to die post-release. Preliminary 2020 MRIP estimates and projections are unavailable due to Covid-19 related data gaps.

Year	Catch (mil. fish)	Harvest (mil. fish)	Harvest (mil. lb)	% Released	Avg. weight of landed fish (lb)
1981	19.68	17.31	11.14	12%	0.64
1982	13.14	10.83	8.62	18%	0.80
1983	13.78	12.19	8.62	12%	0.71
1984	11.38	8.78	3.28	23%	0.37
1985	24.56	18.84	11.29	23%	0.60
1986	37.31	30.43	14.18	18%	0.47
1987	18.11	14.03	10.41	23%	0.74
1988	12.14	9.39	7.03	23%	0.75
1989	23.73	19.32	10.54	19%	0.55
1990	18.26	14.04	7.17	23%	0.51
1991	27.41	21.90	12.91	20%	0.59
1992	20.96	16.50	9.45	21%	0.57
1993	10.71	8.40	4.63	22%	0.55
1994	8.86	6.58	4.33	26%	0.66
1995	6.78	4.06	2.27	40%	0.56
1996	10.38	6.27	4.42	40%	0.70
1997	6.60	3.64	2.54	45%	0.70
1998	6.86	2.74	1.82	60%	0.66
1999	10.99	7.41	4.63	33%	0.62
2000	22.06	14.94	11.39	32%	0.76
2001	21.93	11.13	9.77	49%	0.88
2002	17.36	7.07	6.23	59%	0.88
2003	28.63	17.52	17.21	39%	0.98
2004	26.79	12.94	12.83	52%	0.99
2005	13.19	4.49	4.30	66%	0.96
2006	20.07	5.52	5.93	72%	1.07
2007	17.80	7.46	7.10	58%	0.95
2008	19.51	5.65	5.76	71%	1.02
2009	20.75	6.06	6.28	71%	1.04
2010	25.13	10.60	12.48	58%	1.18
2011	18.52	7.60	10.32	59%	1.36
2012	21.24	7.33	8.27	65%	1.13
2013	25.79	11.49	12.57	55%	1.09
2014	20.37	9.17	9.84	55%	1.07
2015	24.87	11.33	11.93	54%	1.05
2016	31.49	9.14	10.00	71%	1.09
2017	41.20	13.83	13.54	66%	0.98
2018	30.37	14.55	12.98	52%	0.89
2019	28.67	14.95	14.12	48%	0.94
2020	N/A	N/A	N/A	N/A	N/A

In 2019, 90% of the recreational scup harvest occurred during waves 3-5 (May through October), however the dominant wave varied by state (Table 4). Total recreational harvest (numbers of fish) was the highest in New York, followed by Rhode Island, Connecticut, and Massachusetts in 2019 (Table 5). During 2015-2019 about 4% of recreational scup harvest (in pounds) originated in federal waters and 96% came from state waters (Table 6). Recreational scup landings in New Hampshire through New Jersey and Virginia were predominantly from state waters and landings in Delaware, Maryland and North Carolina mostly originated in federal waters (Table 6).

Table 4: Percent of scup harvest (in weight) by wave for each state in 2019, based on MRIP data downloaded October 30, 2020. Only North Carolina has MRIP sampling during wave 1. Values may not add to 100% due to rounding.

State	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
ME	0%	0%	0%	0%	0%	0%
NH	0%	0%	0%	0%	0%	0%
MA	0%	0%	35%	35%	31%	0%
RI	0%	0%	25%	32%	36%	7%
CT	0%	0%	23%	35%	35%	8%
NY	0%	0%	24%	30%	30%	15%
NJ	0%	0%	15%	23%	54%	8%
DE	0%	0%	0%	25%	75%	0%
MD	0%	0%	0%	0%	50%	50%
VA	0%	0%	25%	25%	50%	0%
NC	0%	20%	20%	20%	20%	20%
Total	0%	1%	24%	30%	36%	9%

Table 5: Recreational scup harvest (in numbers of fish) by state, waves 1-6 (January – December), 2011-2019, based on new MRIP estimates. Preliminary 2020 MRIP estimates and projections are unavailable due to Covid-19 related data gaps.

State	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
ME	0	0	0	0	0	0	0	0	0	NA
NH	0	0	0	0	0	0	1,893	0	0	
MA	2,124,508	2,548,922	3,783,126	2,802,294	1,977,462	1,790,614	2,086,417	3,265,715	1,961,011	
RI	1,195,957	1,031,964	2,490,473	2,663,951	1,218,822	1,550,667	1,383,385	2,376,849	3,271,558	
CT	1,940,332	1,839,883	1,837,524	1,184,119	1,179,608	1,352,121	1,695,153	3,071,108	2,491,225	
NY	2,141,028	1,636,283	2,907,277	2,469,479	6,865,853	3,644,607	6,473,410	5,370,586	7,122,255	
NJ	160,409	271,957	464,299	44,640	84,131	655,391	2,179,750	460,134	104,673	
DE	36	497	0	37	565	0	221	329	0	
MD	12	0	0	0	319	186	23	418	380	
VA	34,935	2,871	4,461	0	3,356	149,995	0	0	1,039	
NC	1,020	2,453	760	1,783	3,474	0	359	349	2,016	
Total	7,598,237	7,334,830	11,487,920	9,166,303	11,333,590	9,143,581	13,825,022	14,546,549	14,954,157	

Table 6: Proportion of 2015-2019 recreational harvest (in pounds) from state and federal waters by state based on new MRIP estimates. Area information is self-reported based on the area where the majority of fishing activity occurred for each trip.

State	State Waters (≤ 3 miles)	EEZ (> 3 miles)
MAINE	--	--
NEW HAMPSHIRE	100%	0%
MASSACHUSETTS	96%	4%
RHODE ISLAND	97%	3%
CONNECTICUT	99%	1%
NEW YORK	96%	4%
NEW JERSEY	91%	9%
DELAWARE	0%	100%
MARYLAND	31%	69%
VIRGINIA	100%	0%
NORTH CAROLINA	10%	90%
Total	96%	4%

2020 Recreational Data

Typically, staff uses preliminary MRIP data in the current year for waves 1-4 (January through August) to project catch and harvest through the rest of the year. These projections are then compared to the RHL for the upcoming year to evaluate how harvest may need to be adjusted to prevent RHL overages in the upcoming year. Because 2020 catch data from MRIP are not available due to limited Access Point Angler Intercept Survey (APAIS) sampling related to Covid-19, projections of 2020 harvest cannot be generated.

MRIP effort sampling, via the mail-based Fishery Effort Survey (FES), continued uninterrupted in 2020. Coastwide data on the estimated number of angler trips are available for the first four waves of 2020 (January-August). These data can be broken down by wave and fishing mode; however, they generated for all recreational species combined and are not available by target species given that directed trip data are generated using information from APAIS. Figure 1 and Table 7 summarize estimated combined-species recreational trips for waves 1-4 between 2018-2020 for Maine through North Carolina. These data indicate that estimated total trips in waves 1-4 rose by 11% between 2018 and 2019, and then fell 4% between 2019 and 2020.

By wave, between 2019 and 2020, trips in wave 2 decreased by 19%, trips in wave 3 decreased by 4%, and trips in wave 4 increased by 2%. By mode, estimates of party/charter trips in waves 1-4 decreased by 31% between 2019 and 2020. Private/rental trips increased by an estimated 2%, and shore mode trips decreased by 7%.

While these data can give managers a general sense of how effort in 2020 compares to 2018 and 2019, they cannot be used to make conclusions about scup catch or harvest in 2020. Given the lack of intercept survey data, no information is available on recreational catch rates, discard rates, or

size/weight of landed and discarded scup in 2020. APAIS information is also required to account for and adjust for non-resident fishing effort and account for area fished, which is important for generating harvest and catch estimates. MRIP is in the process of evaluating possible methods for generating estimates of 2020 catch, including modeling approaches, the feasibility of imputation, and using data proxies such as the previous year's data. These approaches will take some time to develop, and any catch estimates that can be generated for 2020 are not likely to be available until at least early 2021.

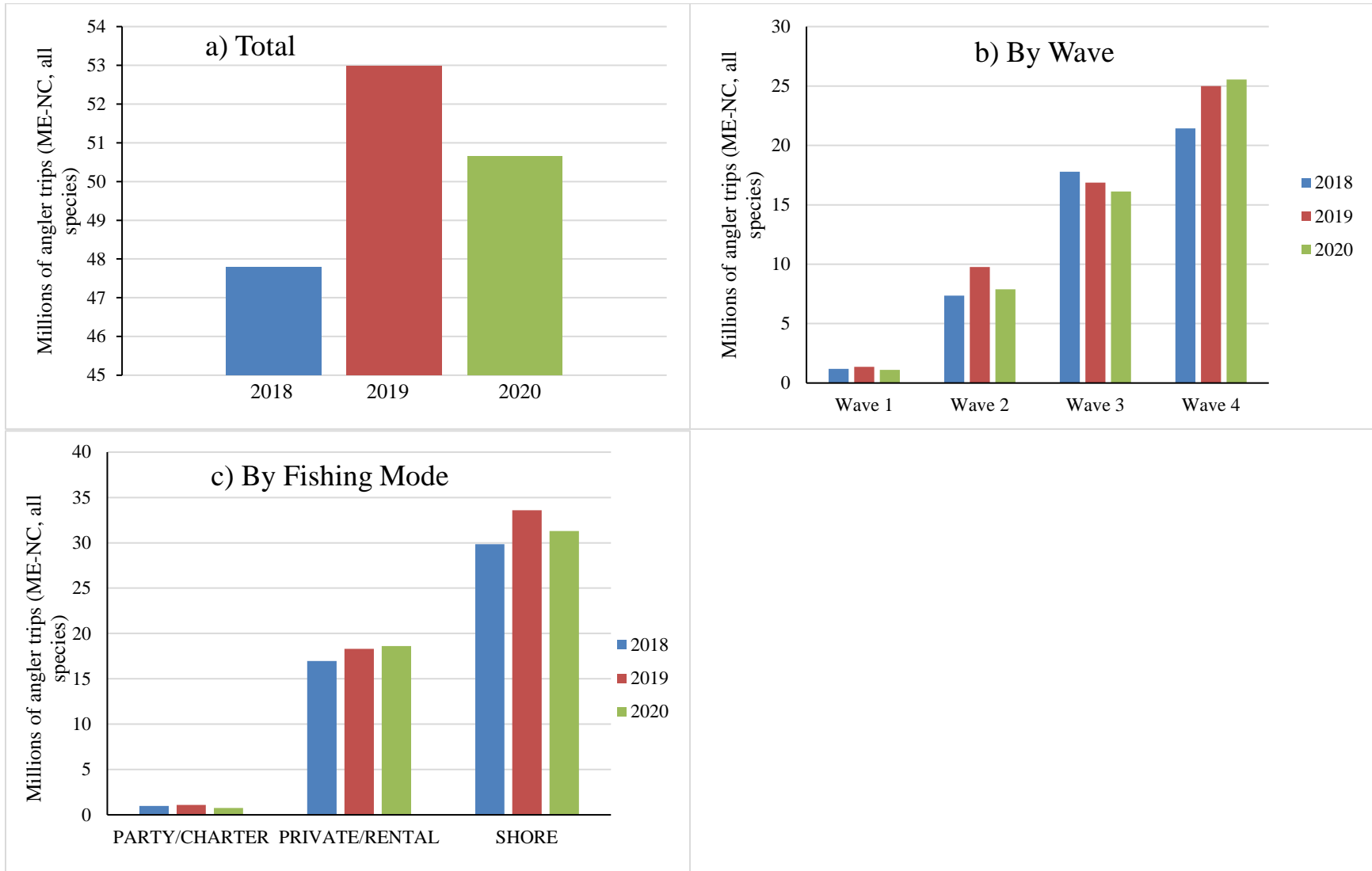


Figure 1: Estimated wave 1-4 angler trips for all species, ME-NC, 2018-2020 for a) all trips combined; b) trips by wave, and c) trips by fishing mode.

Table 7: Total estimated angler trips by wave and fishing mode, 2018-2020, waves 1-4, ME-NC. Includes all trips regardless of species caught or targeted.

	2018	2019	2020
Wave 1 (Jan/Feb)	1,198,416	1,367,270	1,113,345
Party/Charter	284	757	1,935
Private/Rental	396,807	363,376	371,757
Shore	801,325	1,003,137	739,653
Wave 2 (Mar/Apr)	21,434,158	25,000,122	25,551,407
Party/Charter	563,025	675,081	484,402
Private/Rental	7,946,904	8,583,014	10,323,820
Shore	12,924,229	15,742,027	14,743,185
Wave 3 (May/Jun)	7,356,358	9,755,048	7,883,221
Party/Charter	26,347	28,413	3,164
Private/Rental	1,886,247	3,209,239	2,441,457
Shore	5,443,764	6,517,396	5,438,600
Wave 4 (Jul/Aug)	17,793,795	16,866,182	16,112,517
Party/Charter	380,926	388,272	261,453
Private/Rental	6,732,529	6,148,493	5,482,056
Shore	10,680,340	10,329,417	10,369,008
Total	47,782,727	52,988,622	50,660,490

Accountability Measures

Federal regulations include proactive accountability measures (AMs) to prevent the scup ACL from being exceeded and reactive AMs to respond when an ACL is exceeded. Proactive recreational AMs include adjusting management measures (bag limits, size limits, and season) for the upcoming fishing year, if necessary, to prevent the RHL and ACL from being exceeded. The NMFS Regional Administrator no longer has in-season closure authority for the recreational fishery if the RHL or ACL is expected to be exceeded. For reactive AMs, paybacks of ACL overages may be required in a subsequent fishing year, depending on stock status and the magnitude of the overage, as described below. ACL overages in the recreational fishery are evaluated by comparing the most recent 3-year average recreational ACL against the most recent 3-year average of recreational dead catch (i.e., landings and dead discards). If average dead catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

1. If the stock is overfished ($B < \frac{1}{2} B_{MSY}$), under a rebuilding plan, or the stock status is unknown: The exact amount, in pounds, by which the most recent year's recreational ACL has been exceeded will be deducted in the following fishing year, or as soon as possible once catch data are available.
2. If biomass is above the threshold, but below the target ($\frac{1}{2} B_{MSY} < B < B_{MSY}$), and the stock is not under a rebuilding plan:
 - a. If only the recreational ACL has been exceeded, then adjustments to the recreational bag, minimum fish size, and/or season limits will be made in the following year, or as soon as possible once catch data are available. These adjustments will take into account the performance of the measures and conditions that precipitated the overage.
 - b. If the Acceptable Biological Catch is exceeded in addition to the recreational ACL, then a single year deduction will be made as a payback, scaled based on stock

biomass. The calculation for the payback amount is: (overage amount)*
 $(B_{msy}-B)/\frac{1}{2} B_{msy}$.

3. If biomass is above the target ($B > B_{MSY}$): Adjustments to the recreational bag, minimum fish size, and/or season limits will be considered for the following year, or as soon as possible once catch data are available. These adjustments will take into account the performance of the measures and conditions that precipitated the overage.

The most recent three years of recreational catch data available are 2017-2019, years in which the recreational ACLs were set using assessments that used the pre-revision MRIP data; therefore, it is necessary to use catch estimates based on the old MRIP estimation methodology to compare recreational catch to the ACLs. Recreational catch was below the recreational ACLs for scup from 2017-2018. Recreational catch estimates are not available using the old MRIP methodology for 2019, therefore 2019 recreational catch cannot be evaluated against the ACL and a three-year average cannot be calculated. Based on recreational performance from 2017-2018, an AM has not been triggered.

Staff Recommendation

Last year, the MC discussed the restrictions that would be needed to constrain harvest to the RHL in 2020 due to the changes in the MRIP estimation methodology. The scale of these impacts could not be accurately predicted prior to completion of the operational stock assessment in the summer of 2019. This left the Council and Board with little time to consider how to most appropriately respond to the changes in the MRIP estimates before they needed to be applied in management. The MC discussed that they would like to avoid imposing additional restrictions on anglers as management adjusts to the new MRIP numbers, especially given that SSB was 200% of the target in 2018. They felt that there was little to no risk to the stock by allowing the recreational harvest to remain at *status quo* for 2020 while management issues are resolved. Because of this management situation, healthy stock status, and catch projections that were below the 2020 ABC, the MC recommended *status quo* recreational measures in state and federal waters for scup in 2020. These considerations discussed by the MC last year remain relevant to 2021 as the summer flounder, scup, and black sea bass allocation amendment is ongoing.

Typically, staff uses preliminary partial current year recreational catch data to project harvest through the remainder of the current year. This projection is then compared to the RHL for the upcoming fishing year. This year, as described above, recreational data collection was severely limited by restrictions related to the ongoing Covid-19 pandemic. As a result, **no 2020 preliminary harvest estimates are available for scup to project harvest for the year.** Estimated total recreational fishing trips within the management unit are available, however, these estimates are not species specific, and in the absence of angler intercept data, effort estimates cannot be used to estimate harvest.

Without estimates of harvest in 2020, attempts at changing management measures such as bag limit, minimum size, and season in 2021 would have highly uncertain outcomes. In addition, availability of scup to anglers was likely high during 2016-2019 due to the abundant 2015 year class. Availability may have declined in 2020 due to lower than average recruitment from 2016-2018, further limiting comparisons to 2019 estimates. Because of this, **staff recommend that *status quo* recreational measures be maintained for scup in 2021.**