

Scup 2023 Recreational Measures

Advisory Panel

November 30, 2022



Meeting Outline and Objectives

- Review recent recreational fishery performance
- Review Monitoring Committee recommendation for 2023 measures
- Provide input to Council and Board on 2023 recreational measures



2022 Federal Recreational Measures

Possession
limit

- 50 scup

Size limit

- 10 inches total length

Updated
in 2022

Season

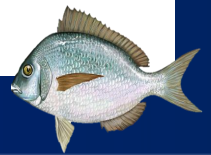
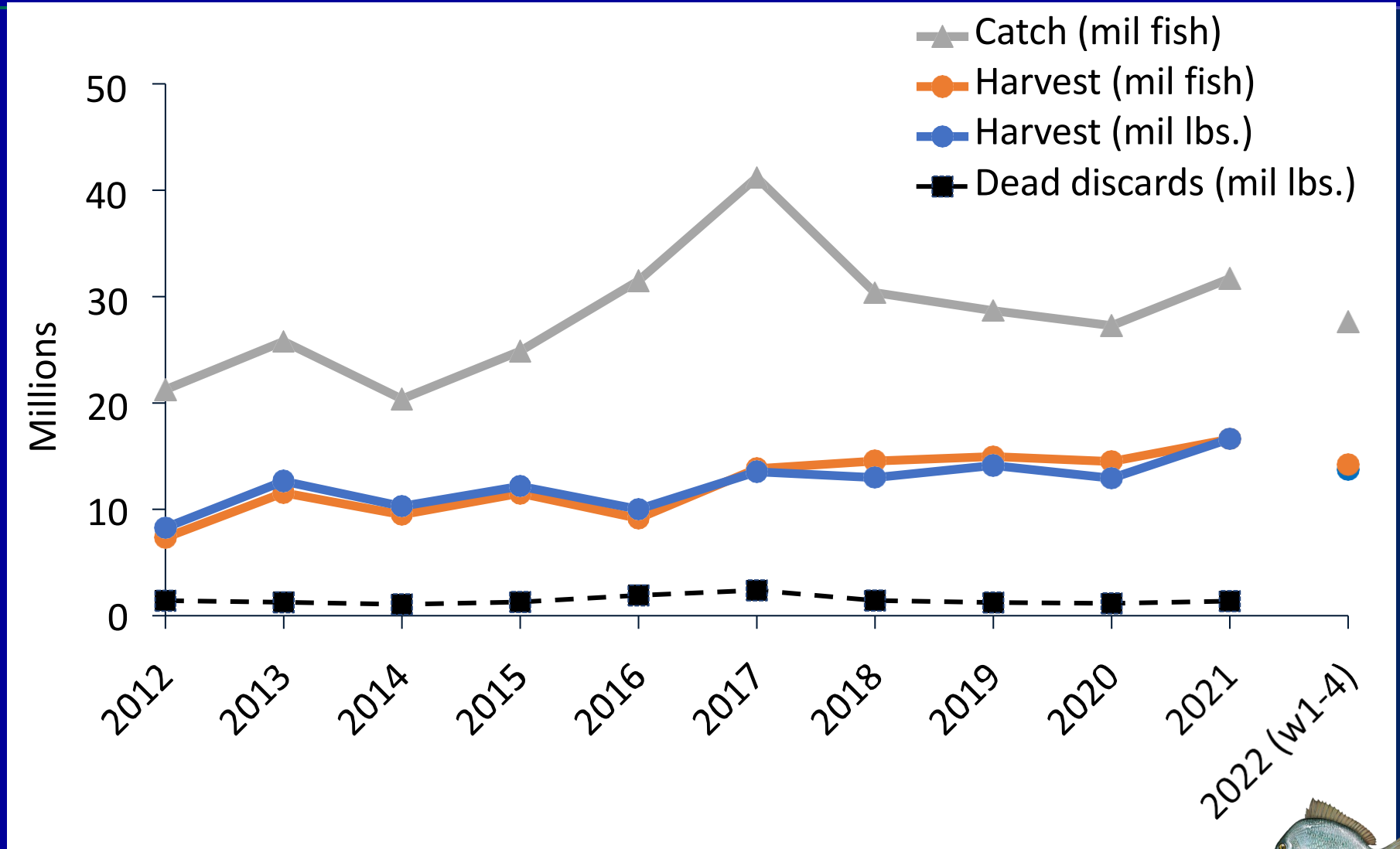
- January 1-December 31



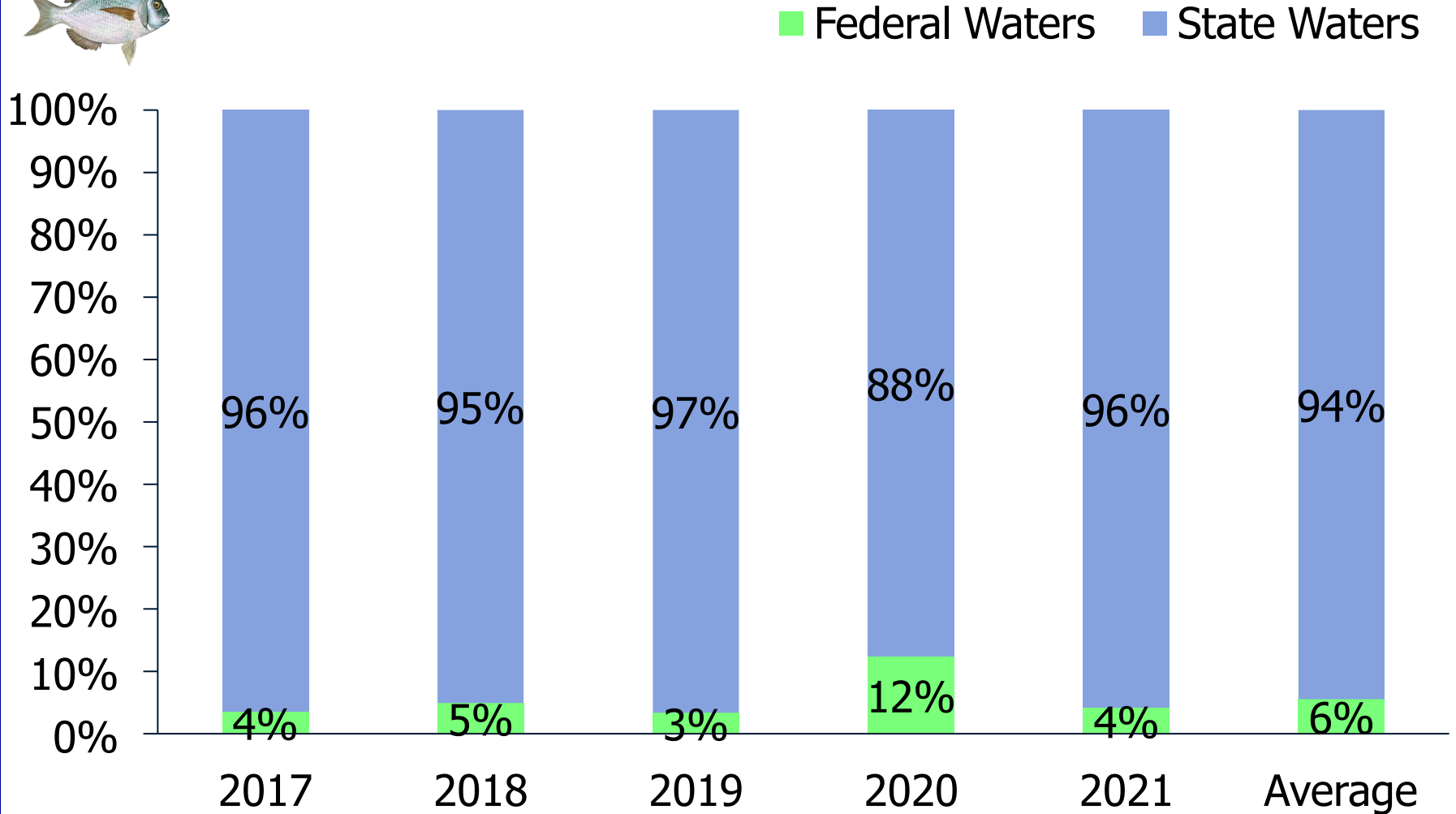
2022 State Recreational Measures			
State	Min. Size (inches)	Possession Limit	Open Season
MA (private & shore)	10	30 fish; 150 fish/vessel w/5+ anglers	Jan. 1-Dec. 31
MA (party/charter)	10	30 fish	Jan. 1-April 30; July 1-Dec. 31
		50 fish	May 1-June 30
RI (private & shore)	10	30 fish	Jan. 1-Dec. 31
RI shore program (7 designated shore sites)	9		
RI (party/charter)	10	30 fish	Jan. 1-Aug. 31; Nov. 1-Dec. 31
		50 fish	Sept. 1-Oct. 31
CT (private & shore)	10	30 fish	Jan. 1-Dec. 31
CT shore program (45 designed shore sites)	9		
CT (party/charter)	10	30 fish	Jan. 1-Aug. 31; Nov. 1-Dec. 31
		50 fish	Sept. 1-Oct. 31
NY (private & shore)	10	30 fish	Jan. 1-Dec. 31
NY (party/charter)	10	30 fish	Jan. 1-Aug. 31; Nov. 1-Dec. 31
		50 fish	Sept. 1- Oct. 31
NJ	10	50 fish	Jan. 1- Dec. 31
DE	9	50 fish	Jan. 1- Dec. 31
MD	9	50 fish	Jan. 1- Dec. 31
VA	9	30 fish	Jan. 1- Dec. 31
4 NC (North of Cape Hatteras)	9	50 fish	Jan. 1- Dec. 31

Recreational Catch and Landing Trends

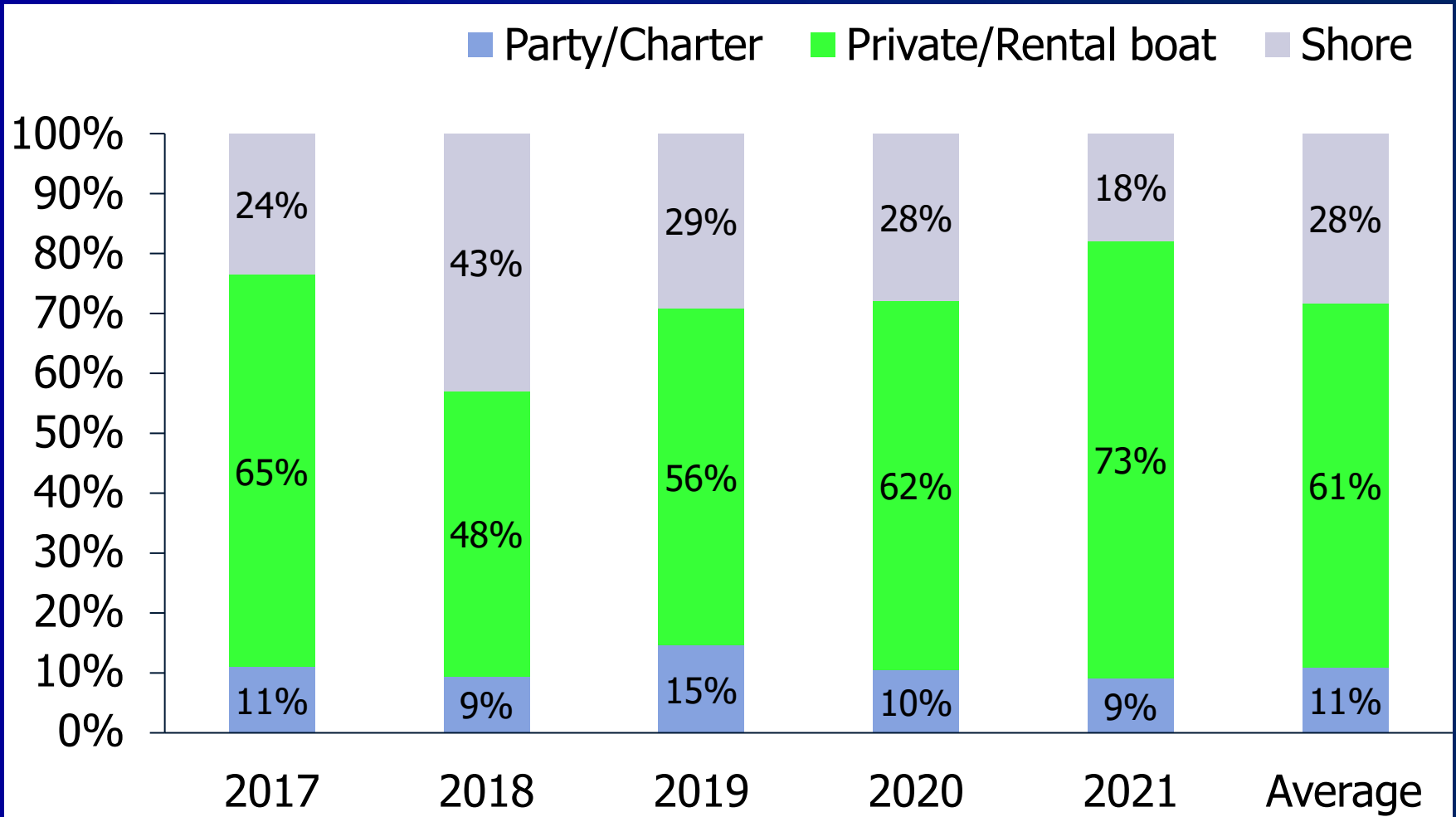
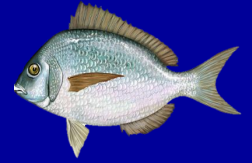
With 2022 Waves 1-4



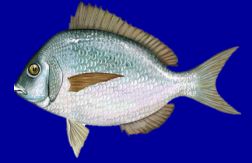
Harvest in Federal and State Waters



Harvest By Mode



Harvest By State



State	2017	2018	2019	2020	2021	2022 (w1-4)
ME	0	0	0	0	0	0
NH	2,156	0	0	0	0	0
MA	2,363,922	3,021,958	1,924,202	1,174,791	3,763,515	1,994,630
RI	1,113,035	2,030,259	2,856,461	1,330,398	2,467,933	2,362,071
CT	1,712,421	2,574,308	2,242,549	2,951,959	2,856,535	1,162,622
NY	6,626,059	4,906,041	6,970,872	6,253,478	7,177,771	8,150,145
NJ	1,708,354	443,700	118,832	1,200,942	194,090	47,087
DE	118	362	0	316	1,179	0
MD	6	369	444	578	331	0
VA	0	0	229	0	157,455	0
NC	508	420	2,637	1,346	2,831	1,302
Total	13,526,579	12,977,417	14,116,226	12,913,808	16,621,640	13,717,857

<i>Column 1</i> 2023 RHL vs expected harvest under 2022 measures	<i>Column 2</i> Biomass compared to target level (SSB/SSB_{MSY})	<i>Column 3</i> Change in Harvest
RHL greater than upper bound of expected harvest CI (RHL underage expected)	Very high greater than 150% of target	Liberalization % = difference between harvest estimate and 2023 RHL, not to exceed 40%
	High at least target, but no higher than 150% of target	Liberalization % = difference between harvest estimate and 2023 RHL, not to exceed 20%
	Low below target stock size	Liberalization: 10%
RHL within expected harvest CI (harvest expected to be close to RHL)	Very high greater than 150% of target	Liberalization: 10%
	High at least target, but no higher than 150% of target	No liberalization or reduction: 0%
	Low below target stock size	Reduction: 10%
RHL less than lower bound of expected harvest CI (RHL overage expected)	Very high greater than 150% of target	Reduction: 10%
	High at least target, but no higher than 150% of target	Reduction % = difference between harvest estimate and 2023 RHL, not to exceed 20%
	Low below target stock size	Reduction % = difference between harvest estimate and 2023 RHL, not to exceed 40%

New Tools for Predicting Harvest



- Recreational Demand Model (RDM)
- Recreational Fleet Dynamics Model (RFDM)
- Not required under Percent Change Approach but are an improvement compared to past methods of using only MRIP data to predict future harvest
- MC recommends use of **RFDM** for setting 2023 recreational measures for scup
 - Predicts past MRIP estimates reasonably well
 - States/others can easily use the model on their own

2023 RHL vs. Expected Harvest under 2022 measures

Step 1:

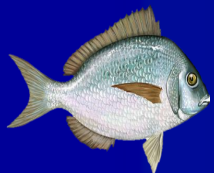
- Compare 2023 RHL to confidence interval around expected 2023 harvest under current (2022) measures

Column 1
**2023 RHL vs
expected harvest
under 2022 measures**

**RHL greater than
upper bound of
expected harvest CI**
(RHL underage
expected)

**RHL within expected
harvest CI**
(harvest expected to be
close to RHL)

**RHL less than lower
bound of expected
harvest CI**
(RHL overage expected)



Confidence Interval Recommendation

- MC recommends use of **80% CI** for all 3 species in 2023
 - Recommended by Harvest Control Rule FMAT/PDT based on evaluation of MRIP data
 - Higher percentage CIs result in wider range of values; may result in action under Percent Change Approach that is not appropriate for “true” fishery condition
- MC supported continued discussion of this topic in 2023 for setting measures for 2024 and beyond.



2023 Harvest Under 2022 Measures

- MC recommends use of **RFDM** for 2023 process
- 2023 RHL:
 - Outside of the 80% CI for RDM
 - Within lower bounds of 80% CI for RFDM

Model	Model estimate for 2023 harvest (median)	80% CI	2023 RHL
RDM	17.21	13.56 – 22.68	9.27
RFDM*	14.42	8.95 – 23.08	

* Updated since briefing memo was finalized. Converted from numbers of fish to weight using avg weight of harvested fish in 2021 (most recent year for model run shown here).



2023 RHL vs. Expected Harvest



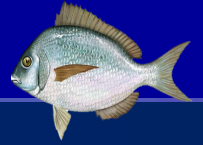
RFDM – MC recommendation

RDM

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Resulting Percent Change for 2023 using RFDM



2023 RHL vs expected harvest under 2022 measures	Biomass compared to target level	Change in Harvest
RHL greater than upper bound of CI (RHL underage expected)	Very high	Liberalization % = difference between harvest estimate and 2023 RHL, not to exceed 40%
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Rec. Accountability Measures

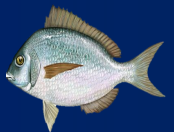
3. If biomass is above the target: Adjustments to measures will be made, taking into account the performance of the measures and conditions that precipitated the overage

Year	Rec. Harvest (mil lbs.)	Rec. Dead Discards (mil lbs.)	Total Dead Rec. Catch (mil lbs.)	Rec. ACL (mil lbs.)	% Over/Under ACL
2019	5.41	0.41	5.82	8.01	-27%
2020	12.91	1.15	14.06	7.87	+79%
2021	16.62	1.36	17.98	7.66	+135%
Average	11.65	0.97	12.62	7.85	+61%

2019 data based on Old MRIP estimates (provided by GARFO)

2020 recreational estimates were developed using imputation methods

2020 and 2021 dead discards for 2020-2021 calculated using alternative methods.



Rec. Accountability Measures continued



- AMs triggered for scup
 - Scup biomass greater than target, therefore, regulations require adjustments to measures
 - Regulations do not specify how
 - GARFO letter to the Council: Due to recent actions taken by Council/Commission, no additional action needed beyond changes required by Percent Change Approach
 - RFDM results in 10% liberalization which may not be justifiable given triggered AMs
- MC recommend status quo measures in place of 10% liberalization
 - Unclear if status quo will satisfy triggered AM

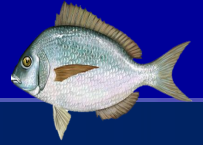
Summary – MC Recommendations

- Use RFDM for setting 2023 recreational scup measures
- Under Percent Change Approach results in a 10% liberalization
 - Due to Accountability Measures, MC recommends **status quo** in place of liberalization



Backup Slides

Resulting Percent Change for 2023 using RDM



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2023 Harvest Target using RDM

- The MC is tasked with developing recommendations for rec. limits for federal waters
 - May also consider adjustments needed to state measures; however, state measures developed separately through Commission process
- Federal and state measures should collectively achieve the **10% reduction** required by Percent Change Approach
 - RDM median estimate of 17.21 million pounds results in a harvest target of **15.49 million pounds**

Consideration for 2023 Measures

Minimum Size limit

- Increase implemented earlier this year
- Prior to this change federal recreational measures remained unchanged for many year
- Effectiveness of increase has not yet been evaluated
- Another increase to min. size would increase min. size to 11 inches
 - Relatively large compared to 50% maturity (~7 inches)
- **Staff recommend avoiding further size limit increases in 2023**



Consideration for 2023 Measures continued

Seasonal closures

- In federal and many states waters would require significant shortening of season or mid-year closure to achieve meaningful reduction in harvest
- Proportion of harvest by wave differs by state
- Seasonal closure in federal waters could disproportionately impact some states
- Seasonal closure applied at state or regional level may be more appropriate

Possession limit

- Majority of angler do not keep a full limit
- Federal and majority of states possession limit is 50 or 30 fish
- Several states have a “bonus wave” for the for-hire sector with a higher bag limit

Additional RDM Analysis and Staff Rec. for 2023 Measures

Set of measures analyzed	Est. harvest under analyzed set of measures (mil lbs.)	Percent reduction achieved	Est. harvest under 2022 measures (mil lbs.)
15 fish possession limit , status quo size limits and seasons	16.28	5.4%	17.21
1-inch increase to size limit , status quo possession limits and seasons	13.22	24%	

- Due to time constraints, additional model runs not performed
- **Staff recommend either:**
 1. A possession limit of <15 fish that achieves full 10% reduction
 2. Coastwide 15 fish possession limit with additional adjustments to state waters measures made through the Commission's process to achieve the 10% reduction