

9:00-9:10

Meeting Objectives and Considerations for 2023 Specs

- Review meeting objectives

9:10-11:00

2023 Scup Recreational Measures

- Review recent recreational fishery performance
- Review RDM and RFDM estimates of 2023 harvest under 2022 measures
- Recommend estimate of 2023 harvest under 2022 measures with confidence interval (CI)
- Determine percent change in harvest required
- Recommend 2023 federal waters recreational limits, as well as considerations for adjustments to state measures, to achieve the percent change in harvest required

11:00–11:10

Break

11:10-12:00

2023 Black Sea Bass Recreational Measures

- Same as above for scup
- Recommend use of coastwide measures or conservation equivalency
- Recommend 2023 precautionary default and non-preferred coastwide measures under conservation equivalency

12:00-1:00

Lunch

1:00-2:00

2023 Black Sea Bass Recreational Measures Continued

2:00–3:50

2023 Summer Flounder Recreational Measures

- Same as above for black sea bass

3:50-4:00

Next Steps and Adjourn

<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%

Meeting Outline and Objectives

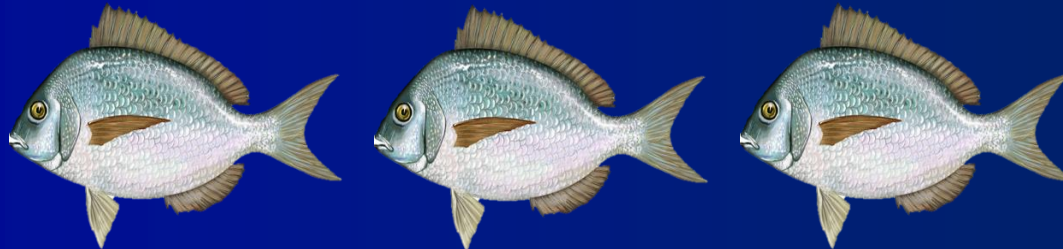


- Review recent recreational fishery performance
- Review model results and recommend estimates of 2023 harvest under 2022 measures with confidence interval
- Determine percent change in harvest required under the Percent Change Approach
- Recommend 2023 recreational measures
 - Federal measures for Scup
 - Coastwide measures or conservation equivalency for summer flounder and black sea bass
 - Precautionary default and non-preferred coastwide measures under conservation equivalency for summer flounder and black sea bass





2023 Scup Recreational Measures Monitoring Committee Meeting



November 15, 2022

2022 Federal Recreational Measures

Possession
limit

- 50 scup

Size limit

- 10 inches total length

Updated
in 2022

Season

- January 1-December 31

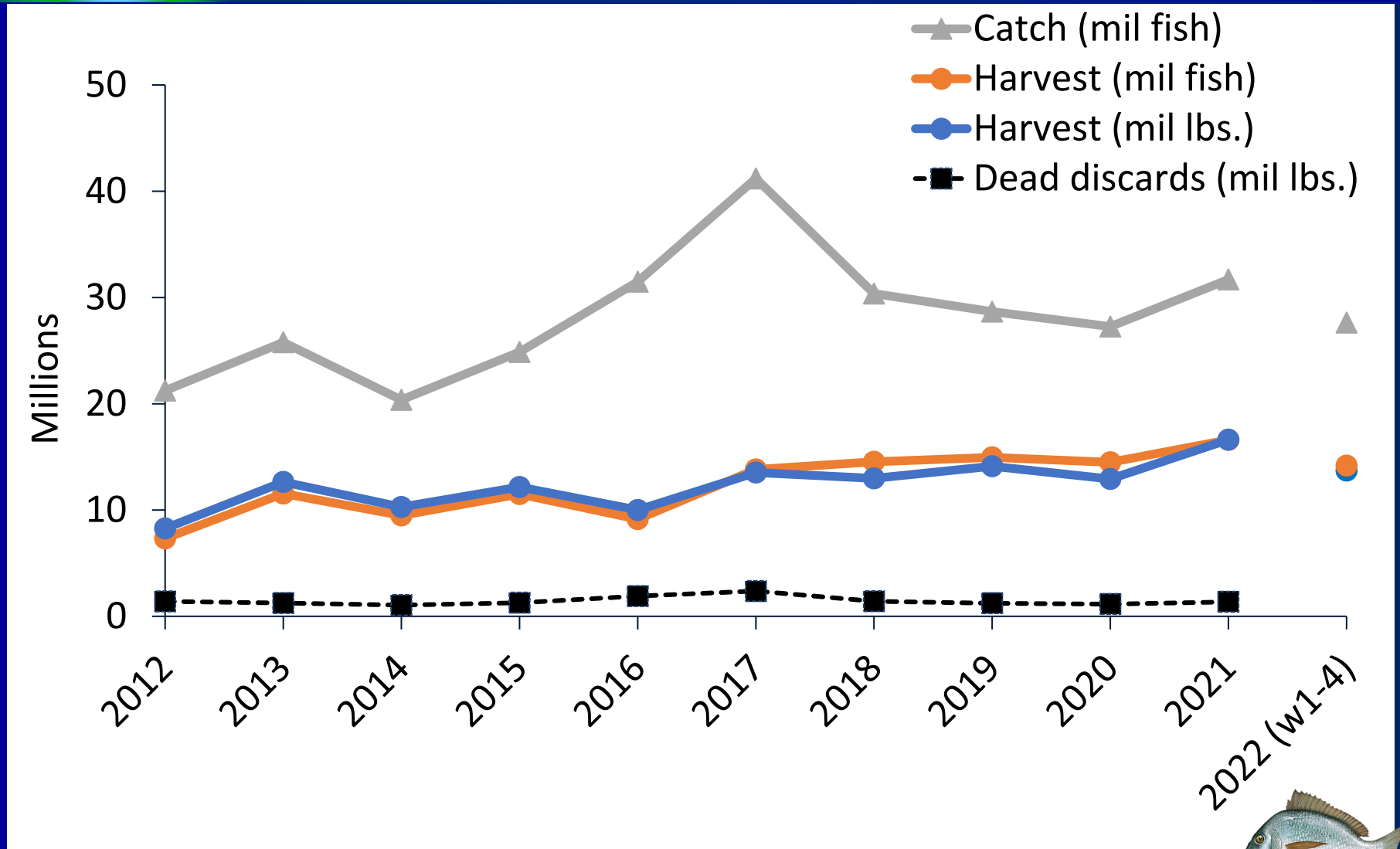


2022 State Recreational Measures

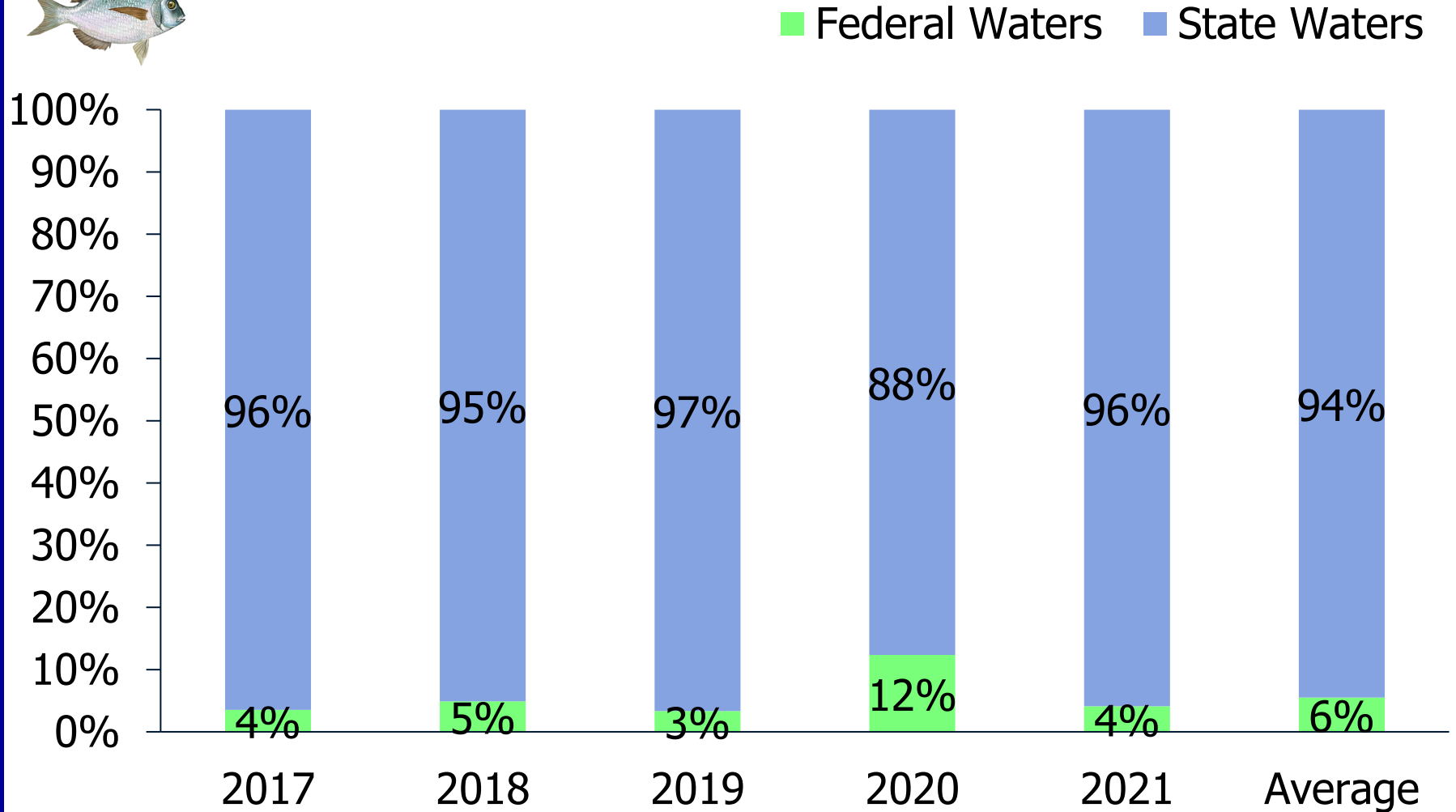
State	Min. Size (inches)	Possession Limit	Open Season
MA (private & shore)	10	30 fish; 150 fish/vessel w/5+ anglers	April 13-Dec. 31
MA (party/charter)	10	30 fish	April 13-April 30; July 1-Dec. 31
		50 fish	May 1-June 30
RI (private & shore)	10	30 fish	Jan. 1-Dec. 31
RI shore program (7 designated shore 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
NC (North of Cape Hatteras)	9	50 fish	Jan. 1- Dec. 31

Recreational Catch and Landing Trends

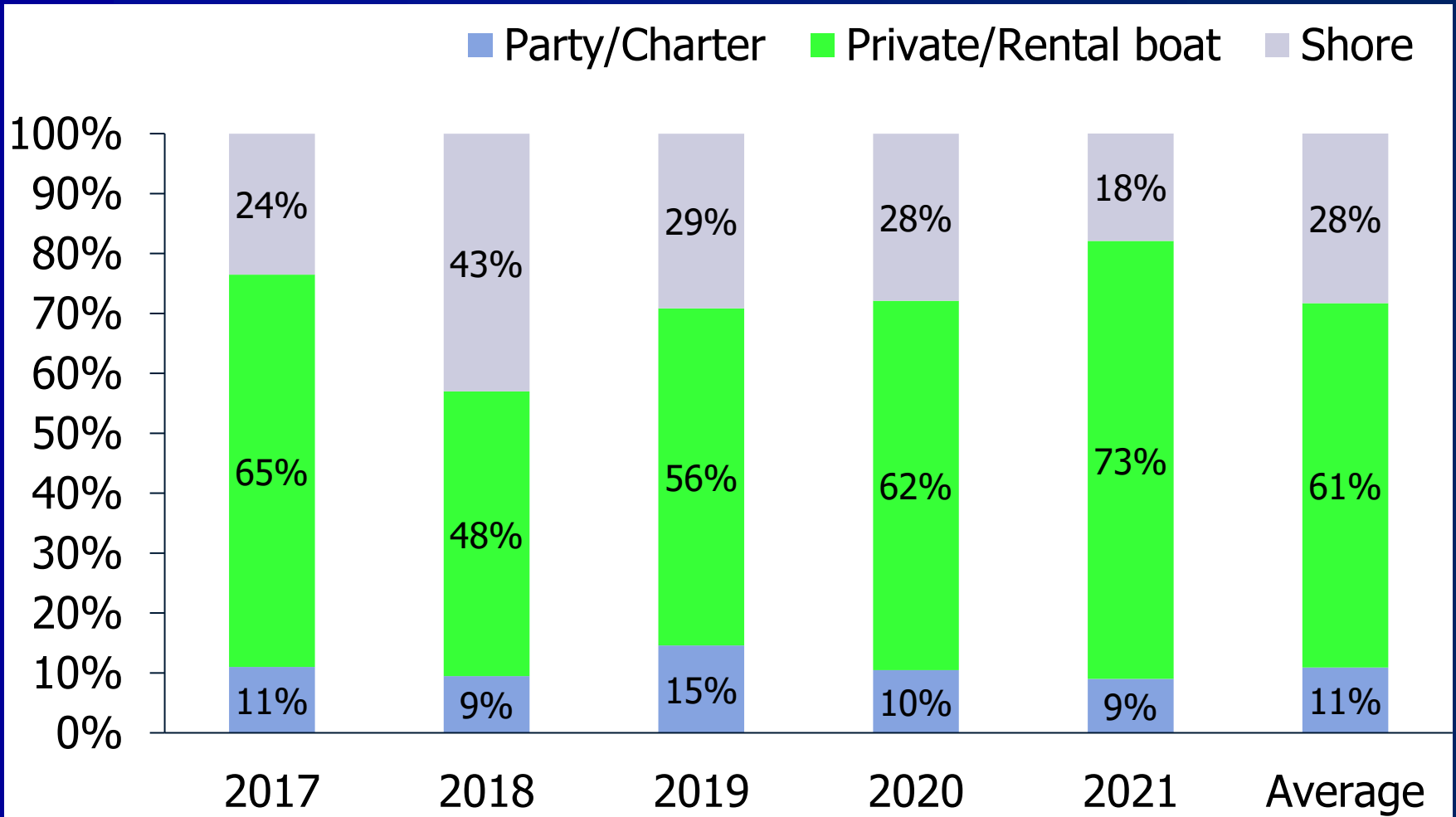
With 2022 Waves 1-4



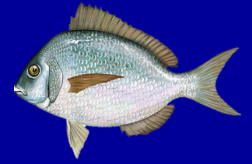
Harvest in Federal and State Waters



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

2023 Harvest Under 2022 Measures



- First step under the Percent Change Approach
- RDM estimates slightly higher than RFDM estimates
- 2023 RHL is below 5 of the 6 CIs shown below
 - Harvest very likely to exceed 2023 RHL if measures left unchanged.

Model	Model estimate for 2023 harvest	95% CI	90% CI	80% CI	2023 RHL
RDM	17.21 (median)	10.75 – 26.68	11.98 – 24.94	13.56 – 22.68	9.27
RFDM*	16.84 (median)	8.21 – 31.38	9.38 – 28.10	10.73 – 25.68	

**Converted to pounds based on average weight of harvest in 2021 from MRIP data*

Confidence Interval Around Expected 2023 Harvest



- Percent Change Approach does not specify methods for calculating CIs
- MC should provide advice to Council/Board on appropriate CI for 2023
- **Staff recommend additional discussion/evaluation on this issue in 2023 to inform a more consistent approach to use of CIs**

Confidence Interval Around Expected 2023 Harvest



- **For 2023, staff recommend use of 80% CI**
 - Recommended by the Harvest Control Rule FMAT/PDT when considering MRIP data only
 - Models should increase our confidence in ability to predict harvest
 - Higher percentage CIs result in wider range of values: may not be appropriate for applying Percent Change Approach
 - 90% or 95% more likely to contain “true” harvest value, but creates higher likelihood of ending up in an inappropriate PCA bin
- Staff recommend same percentage CI be used for all 3 species

Resulting Percent Change for 2023



<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 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%

- Based on model results from previous slide:
 - Harvest target of **15.49 mil lbs.** based on RDM estimate
 - Harvest target of **15.16 mil lbs.** based on RFDM estimate
 - *Harvest targets may be revised based on updated model runs*

Rec. Accountability Measures



- 1. If the stock is overfished, under a rebuilding plan, or stock status is unknown:** Exact overage amount must be paid back as soon as possible. **Payback** may be evenly spread over 2 years if doing so allows for identical measures for the upcoming 2 years.
- 2. If biomass is above the threshold, but below the target, and the stock is not under a rebuilding plan:**
 - **If only the ACL exceeded:** Adjust bag/size/season, taking into account performance of the measures and conditions that precipitated the overage.
 - **If most recent F exceeds Fmsy:** adjustment to the rec. ACT will be made as soon as possible as a payback that will be scaled based on stock biomass where $\text{payback} = (\text{overage amount}) * (B_{msy} - B) / \frac{1}{2} B_{msy}$. **Payback** may be evenly spread over 2 years if doing so allows for identical measures for the upcoming 2 years. If F/Fmsy not available for most recent year of catch data, catch vs ABC comparison will be used.
- 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.

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 $>$ target; therefore, regs 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
 - 5 of 6 CIs shown on previous slide would require 10% reduction, regardless of AMs
 - 95% CI could result in 10% liberalization which may not be justifiable given triggering of AMs



2023 Harvest Target

- 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**
 - RFDM median estimate of 16.84 million pounds results in a harvest target of **15.16 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

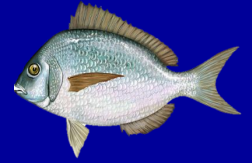
- Majority of angler do not keep a full limit
- Federal and majority of states possession limit is 50 or 30 fish
- Several states have a “bonus wave” for the for-hire sector with a higher bag limit

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

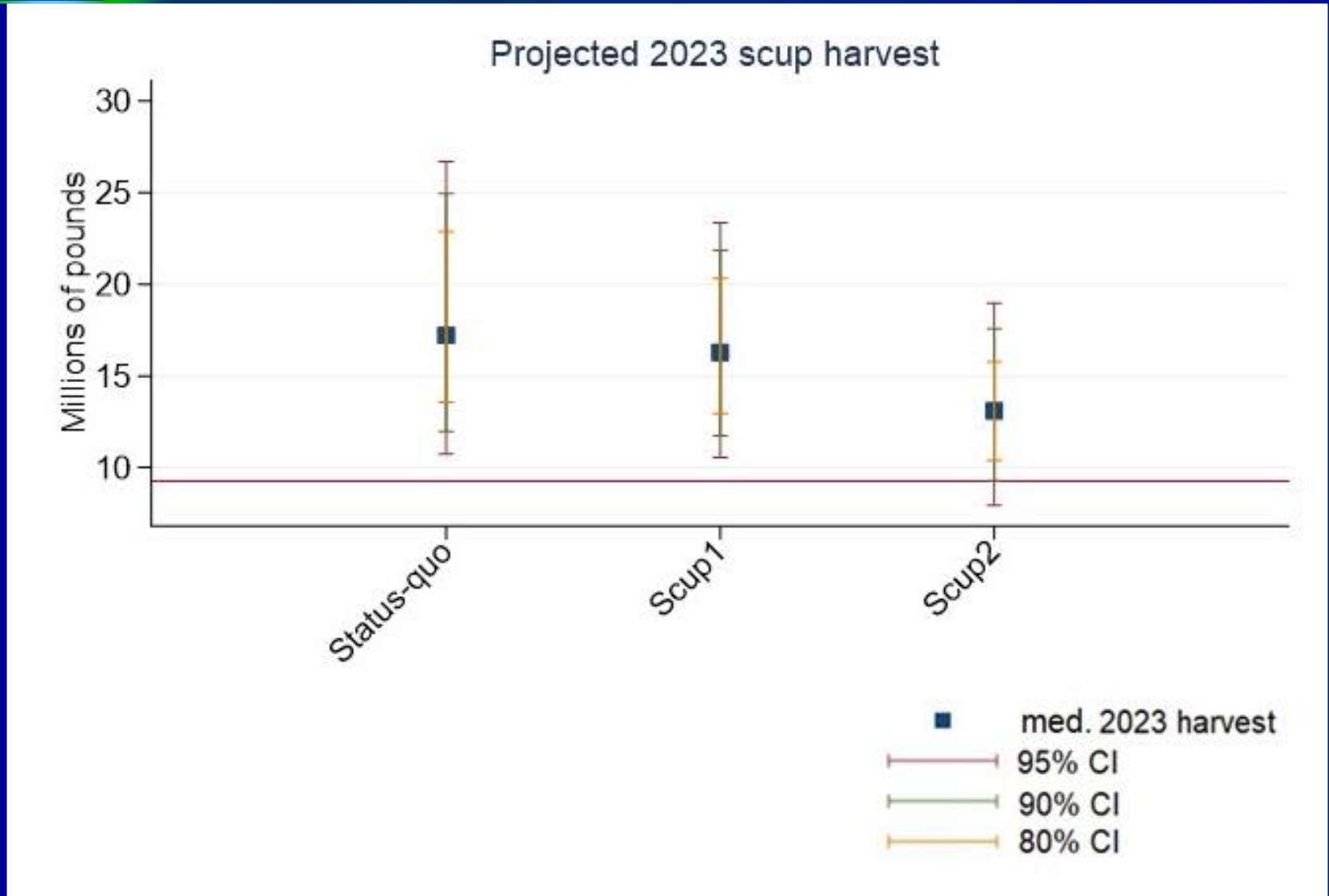
Decision Points



- Recommend estimate of 2023 harvest under 2022 measures and associated CI
 - *Staff recommend use of RDM or RFDM and 80% CI*
- Determine appropriate percent change in harvest required under the Percent Change Approach
 - *10% based on staff recommendation*
- Recommend federal water measures and considerations for state water measures
 - *Staff recommend either:*
 1. The MC evaluate a coastwide possession limit of less than 15 fish that achieved full 10% reduction
 2. The MC recommend a coastwide 15 fish possession limit with additional adjustments to state waters measures made through the Commission's process to achieve the 10% reduction

Backup Slides

Additional RDM Analysis Results

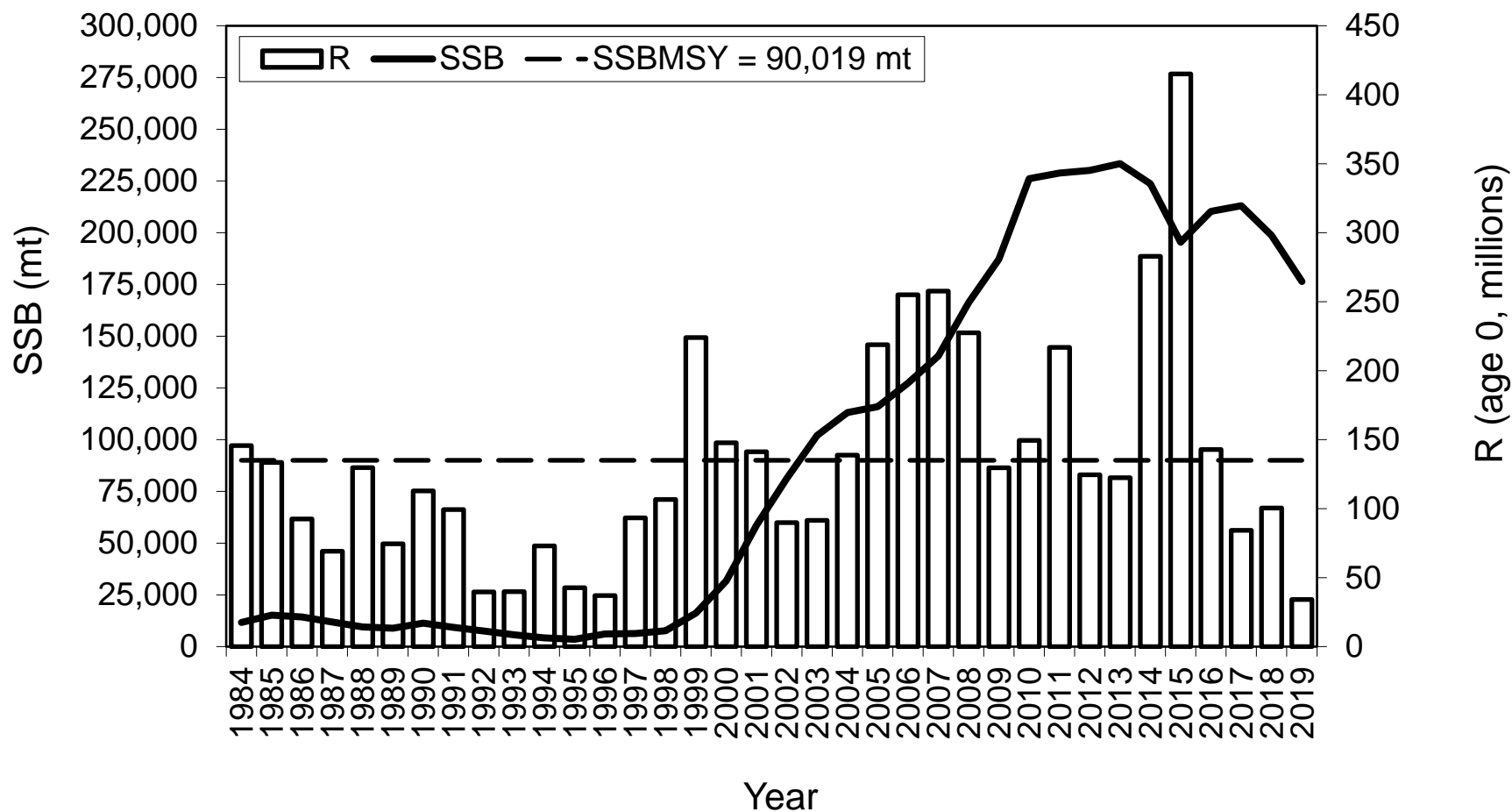


RHL Performance

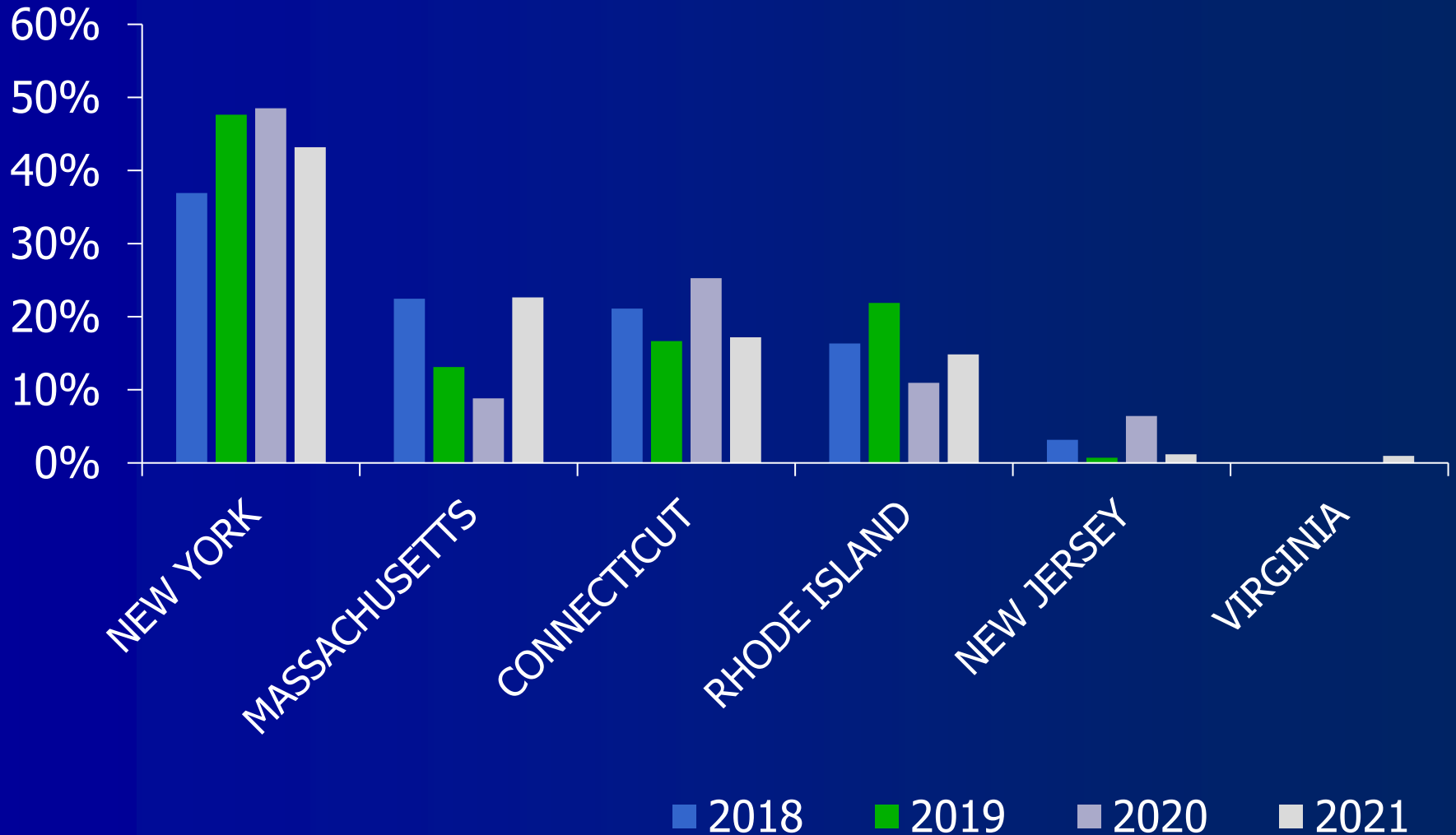
Year	Catch (mil of fish)	Harvest (mil of fish)	Harvest (mil lbs.)	Dead discards (mil lbs.)	% Released (released alive)	Avg. weight of landed fish (mil lbs.)
2012	21.24	7.33	8.27	1.40	65%	1.13
2013	25.79	11.49	12.57	1.25	55%	1.09
2014	20.37	9.17	9.84	1.06	55%	1.07
2015	24.87	11.33	11.93	1.28	54%	1.05
2016	31.49	9.14	10.00	1.90	71%	1.09
2017	41.20	13.84	13.54	2.38	66%	0.98
2018	30.37	14.55	12.98	1.42	52%	0.89
2019	28.67	14.95	14.12	1.23	48%	0.94
2020	27.27	14.49	12.91	1.15	47%	0.89
2021	31.70	16.60	16.62	1.36	48%	0.99
2022 (wave 1-4)	27.64	14.18	13.72	--	49%	0.97

SSB and Recruitment

Spawning Stock Biomass (SSB) and Recruitment (R)



Recreational Harvest by State as % of Coast



Commercial Quota and Landings

Year	Quota (mil lb)	Landings (mil lb)	% of quota landed
2015	21.23	17.03	80%
2016	20.47	15.76	77%
2017	18.38	15.44	84%
2018	23.98	13.37	55%
2019	23.98	13.78	57%
2020	22.23	13.58	61%
2021	20.50	12.93	63%