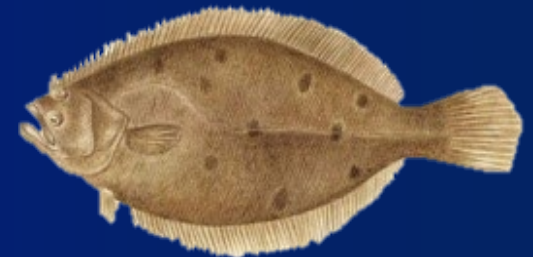


Summer Flounder 2024-2025 Recreational Measures

Council and Board
December 12, 2023



Council/Board Objectives



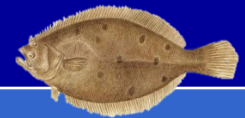
- Identify percent change needed under Percent Change Approach and associated harvest target
- Adopt either:
 - Coastwide measures (bag, size, season)
 - Conservation equivalency, with non-preferred coastwide and precautionary default measures
- Provide any preliminary guidance on adjustments to state measures, if desired

2023 Recreational Measures



- Regional Conservation Equivalency
 - State measures control harvest; federal measures waived
- Non-preferred coastwide measures
 - Implemented in federal regulations, but waived
 - 18-inches, 3 fish, May 15-Sept. 22
- Precautionary default
 - “Deterrent” measures
 - 20-inch TL, 2 fish, July 1-August 31

2023 State Measures



	Min. Size (in)	Bag Limit	Season
MA	16.5	5 fish	May 21-September 29
RI	18	4 fish	
RI SHORE	18	2 fish*	May 3-December 31
	17	2 fish*	
CT	18.5	4 fish	May 1-October 9
CT SHORE SITES	17		
NY	18.5		
NJ	Slot limit 17-18	2 fish ^b	May 2-September 27
	18	1 fish ^b	
NJ SHORE SITE	16	2 fish	
NJ DE BAY	17	3 fish	
DE, MD, PRFC, VA	16	4 fish	
NC^c	15	1 fish	September 15-29

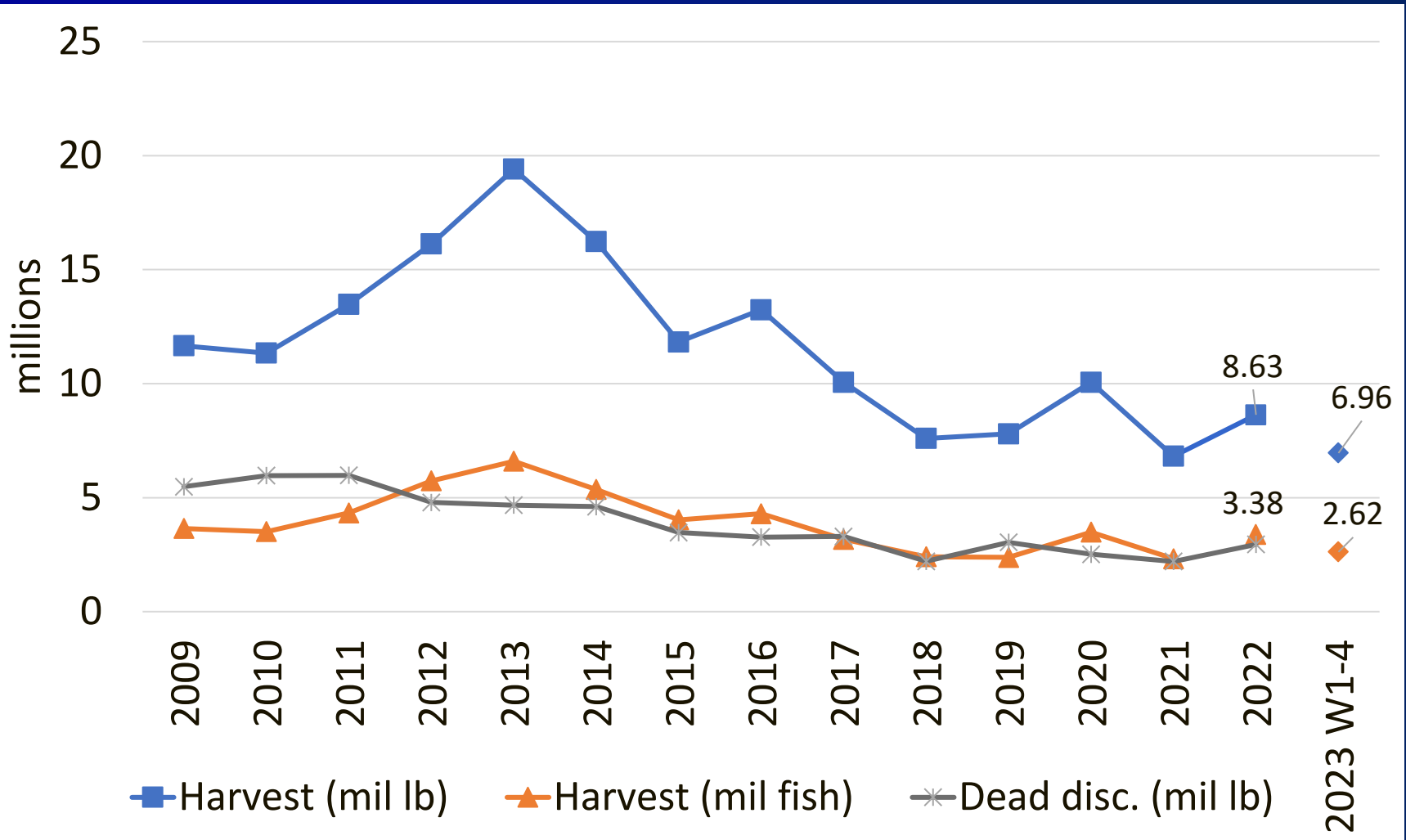
^a Combined limit of 4 fish, no more than 2 at 17 inches

^b NJ slot limit total possession limit of 3 fish: 2 between 17-18; 1 over 18

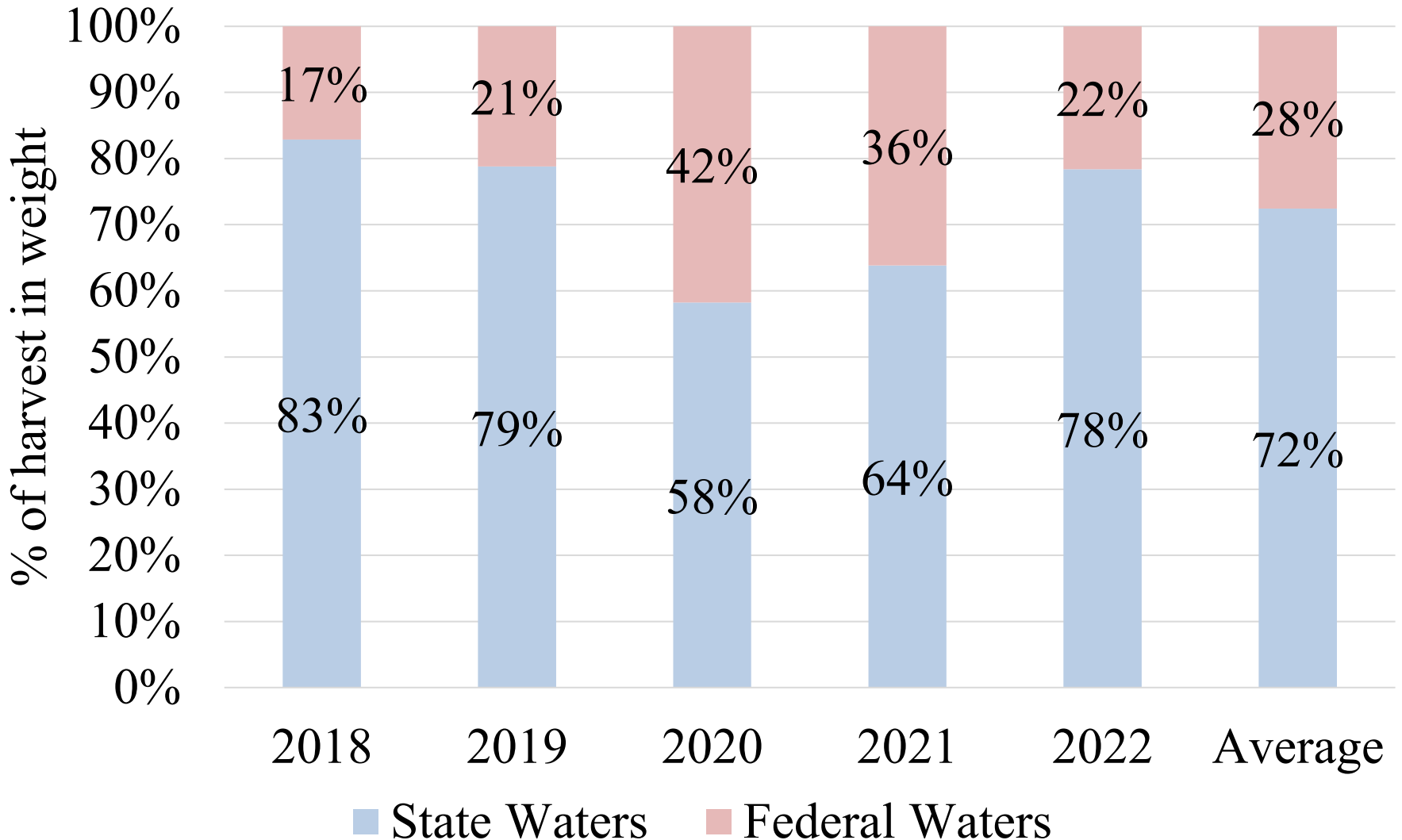
^c NC restrictions to reduce mortality on southern flounder

Harvest 2009-2022

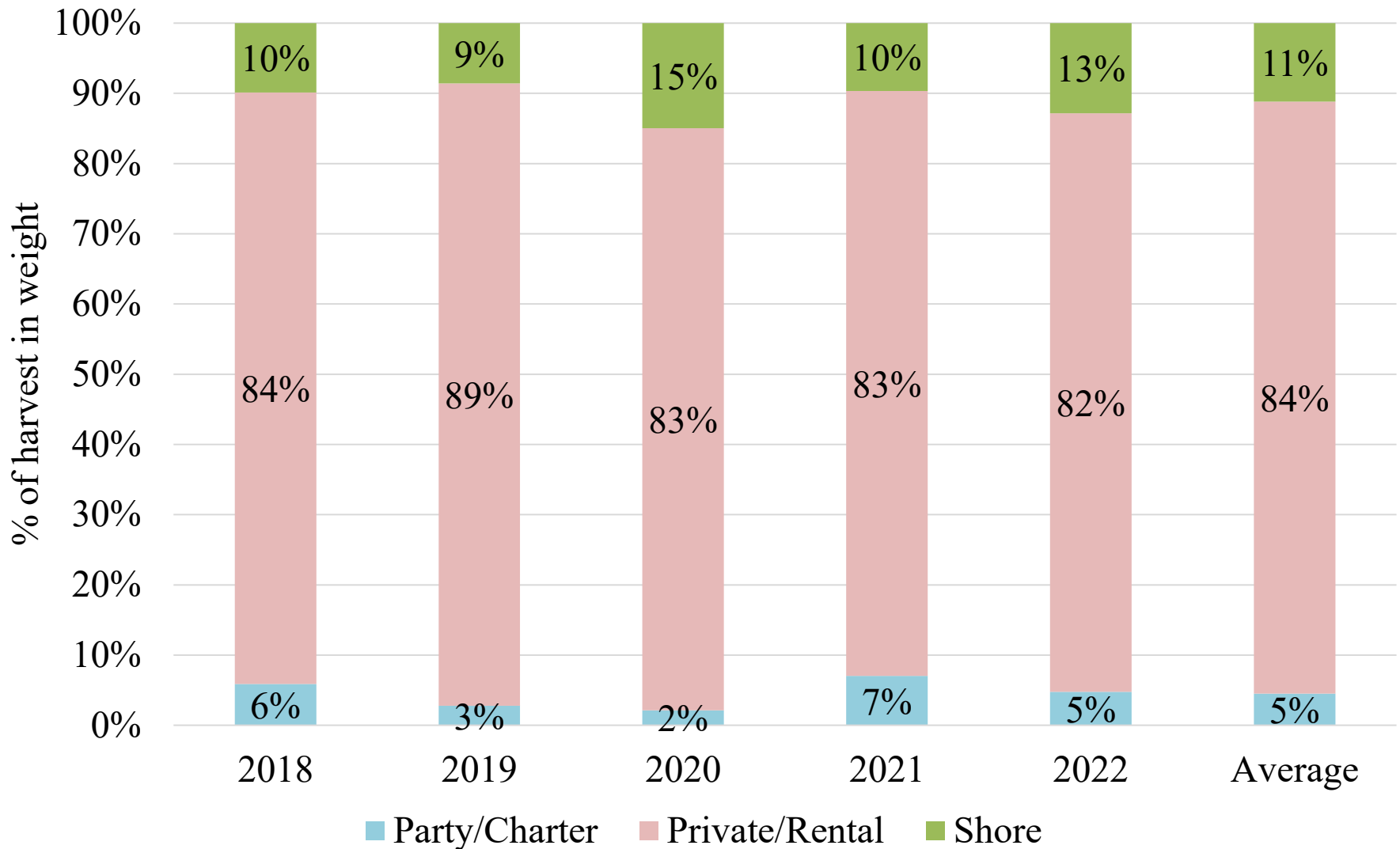
With 2023 Waves 1-4



State vs. Federal Waters Harvest (lb)



Harvest (lb) by mode



<i>Column 1</i> 2024-25 RHL vs expected harvest under 2023 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 RHL, not to exceed 40%
	High at least target, but no higher than 150% of target	Liberalization % = difference between harvest estimate and 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 RHL, not to exceed 20%
	Low below target stock size	Reduction % = difference between harvest estimate and RHL, not to exceed 40%

2024-2025 RHL

- August 2023: Council and Board reviewed 2023 management track assessment (MTA) and adopted 2024-2025 RHL = 6.35 mil lb
- Represents 40% reduction from 2023 RHL (10.62 mil lb)

Recap – Stock Status Issues Informing 2024-2025 Limits

- 2023 MTA showed overfishing was occurring in 2022 despite recent underages of the ABCs and OFLs
- Projections from the previous MTA appear to have been overoptimistic
 - Minor retrospective pattern (overestimating SSB and underestimating F) compounded by adding 3 years of catch, survey, biological data
 - Overoptimistic estimation of 2018 year class contributed
- Changes in productivity
 - Declining mean length/weights at age for both sexes
 - Declining maturity at age (largest impact for age 1)
 - Recent 12-year period of low (but stable) recruitment

Percent Change in Rec. Harvest Needed for 2024-2025



<p><i>Column 1</i></p> <p>2024-25 RHL vs expected harvest under 2023 measures</p>
<p>RHL greater than upper bound of expected harvest CI (RHL underage expected)</p>
<p>RHL within expected harvest CI (harvest expected to be close to RHL)</p>
<p>RHL less than lower bound of expected harvest CI (RHL overage expected)</p>

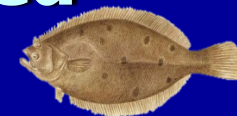
- **Percent Change Approach Step 1:** Compare 2024-2025 RHL to 80% confidence interval around expected 2024-2025 harvest under current (2023) measures

	Median	80% CI	2024-2025 RHL
RDM estimate	8.88	8.10 – 9.48	6.35

- RHL is less than lower bound of this CI

<i>Column 1</i> 2024-25 RHL vs expected harvest under 2023 measures	<i>Column 2</i> Biomass compared to target level (SSB/SSB_{MSY})	<i>Column 3</i> Change in Harvest
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	Low below target stock size	Reduction % = difference between harvest estimate and RHL, not to exceed 40%

Rec. Accountability Measures: Not Triggered for Summer Flounder



	Rec. Harvest (mil lb)	Rec. Dead Discards (mil lb)	Dead Rec. Catch (mil lb)	Rec. ACL (mil lb)	% Over/Under ACL
2020^a	10.08	2.52	12.59	11.51	+9%
2021	6.82	2.20	9.01	12.48	-28%
2022	8.63	2.95	11.58	14.64	-21%
Average	8.51	2.55	11.06	12.88	-14%

^a 2020 MRIP harvest estimate incorporated ~19% imputed data

2024-2025 Harvest Target

- Percent reduction = difference between harvest estimate and RHL, not to exceed 40%
- Harvest estimate of 8.88 million pounds, reduced down to RHL of **6.35 million pounds**
 - **28% reduction in harvest**

Monitoring Committee Recommendations



- Recommend continuation of regional conservation equivalency in 2024-2025 using the same regions as 2023
 - Federal measures waived; combination of regional measures designed to achieve harvest target

Non-Preferred Coastwide Measures

- MC recommends 18.5 inches, 3 fish, May 8-Sept. 30
 - See MC summary from 12/7

Comparison of coastwide summer flounder alternatives.				
Alternative	SF bag	SF size	SF season	Median percent change in coastwide harvest pounds (80% CIs)
Coastwide 1	3	19	May 25 - August 31	-54.40 (-56.24, -53.00)
Coastwide 2 (Status quo NP coastwide)	3	18	May 15 - Sep. 22	-15.46 (-17.89, -13.62)
Coastwide 3	3	18.5	May 15 - Sep. 22	-33.95 (-35.37, -32.66)
Coastwide 4	3	18.5	May 15 - Sep. 30	-31.59 (-32.97, -30.17)
Coastwide 5	3	18.5	May 8 – Sep. 30	-30.12 (-31.54, -28.78)

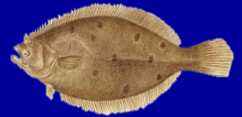
Notes: Regulations for scup and black sea bass set at 2023 status-quo values. Lower and upper bounds correspond to the 10th and 90th percentiles of the distribution of model output and represent 80% confidence intervals.

Precautionary Default Measures



- MC recommends *status quo* precautionary default measures of **2 fish, 20 inches, July 1-August 31**
- Likely to be sufficiently restrictive in all states
 - RDM run of 19 inches, 3 fish, May 25-August 31 resulted in 54% reduction; status quo precautionary default are notably more restrictive

AP Comments



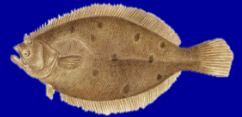
- Many advisors concerned and frustrated with 28% reduction needed
 - Magnuson requires socioeconomic impact analysis – is this being sufficiently addressed?
 - Will particularly hurt for-hire industry and associated shoreside businesses; party/charter vessels will go out of business
 - Need to know what regulations will be to achieve this reduction
 - Swing from 16% liberalization 2 years ago to 28% reduction is “feast or famine” management

AP Comments



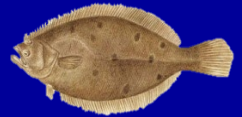
- Impacts amplified by cuts in several other recreational fisheries (e.g., striped bass, scup)
- Some support for sector separation – may help for-hire sector avoid large cuts if managed using their own reported data instead of MRIP data

AP Comments



- Many states are down in harvest this year compared to last – what is 28% relative to, and do current year trends factor into regional reduction needed?
 - RDM is informed by range of data sources, including current year W1-4 data and last year's data for average catch per trip
 - Coastwide reduction of 28% needed is relative to RDM projection of 2024 harvest under current measures

AP Comments



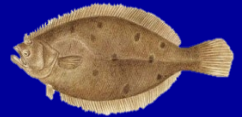
- Some concern about 2-year measures especially given large reduction needed
 - Are 2-year measures required?
 - Clarification that reduction is taken once in 2024, then measures stay the same in 2025
- One recommendation for considering different measures by mode – shore fishing is very different with limited seasonal shore access
- Two noted opposition to increases in size limits/support for reduced size limits
 - Size limit increases would increase dead discards

AP Comments



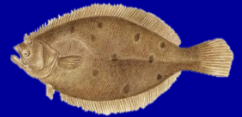
- Concern about possible future changes to MRIP based on recent pilot study (question order in the Fishing Effort Survey)
 - Current survey methodology contributing to issues such as need for large fluke reduction?
 - MRIP issues/potential changes should be considered in terms of what represents best available science

AP Comments



- Question about whether discards are assumed to occur during open season only or accounted for year-round
 - Concerned that people are not reporting discards accurately
- Frustration that managers have not considered total length limit for summer flounder management
 - Another advisor supported exploration of alternative strategies such as total length limit, or hook size regulations to reduce discards

AP Email Comments



- To achieve 28% reduction in DE, MS, VA, cut the bag limit to 3 fish
- “Yoyo effect” of measures/limits increasing and decreasing is demoralizing
- Need to address discards of summer flounder and reduce harvest of larger female fish
 - Should change commercial min. size to 13”
 - Do not allow states to increase rec. size limits or season length in 2024-2025 (both increase discards)
 - Require 7/0 hooks in rec fishery
 - Try managing solely on bag limit or total length (no min size); must stop fishing when limit reached

Summary: MC Recommendations

- Regional conservation equivalency in 2024-2025
- 28% reduction taken in 2024 based on Percent Change Approach and RDM projections
- Non-preferred coastwide measures: 18.5 inches, 3 fish, May 8-September 30
- Precautionary default measures: 20 inches, 2 fish, July 1-August 31

Addendum XXXII – Regional Approach



Measures are developed using a six region approach where measures for all states within a region must consist of the same minimum size limit, possession limit, and season length:

1. Massachusetts
2. Rhode Island
3. Connecticut – New York
4. New Jersey
5. Delaware – Virginia
6. North Carolina

SUPPLEMENTAL

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 F_{msy}:** 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/F_{msy} 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.

Non-Preferred Coastwide Measures

- Identify non-preferred coastwide measures that achieve **~28% reduction** in harvest relative to RDM projection under “status quo measures” = 8.88 mil lb
 - Coastwide harvest target: 6.35 mil lb
 - “Status quo measures” = current state measures
 - Did not manage to totally align current (2023) non-preferred coastwide measures with state measures in terms of expected harvest, so current NP coastwide measures are associated with a reduction

Recap: Specifying 2023 Non-Preferred Coastwide Measures

- MC recommendation: 10% liberalization based on November RDM results
- December RDM updates: 10% reduction needed
- Council and Board adopted status quo state measures due to this conflict
- However, modified the non-preferred coastwide measures given that RDM showed 2022 NP measures too restrictive under either configuration
 - Did not have time to analyze measures that more closely “matched” combined state harvest projections

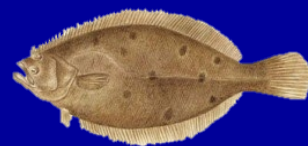
Coastwide 5: 18.5 inches, 3 fish, May 8-September 30

RDM coastwide alternative 3 projections for 2024 (sent on 11/22/2023)

Species	Median percent change in coastwide harvest (pounds) = $(\text{coastwide5-SQ})/\text{SQ} * 100$	Lower bound	Upper bound
Black sea bass	-0.78	-0.85	-0.71
Scup	-0.11	-0.12	-0.10
Summer flounder	-30.12	-31.54	-28.78

Notes: lower and upper bounds correspond to the 10th and 90th percentiles of the distribution of model output and represent 80% confidence intervals. Regulations for summer flounder set at 18.5-inch minimum size, 3 fish bag limit, and open season of May 8 to September 30. Scup and black sea bass regulations set at 2023 status-quo values.

Stock Status: 2023 Management Track Assessment



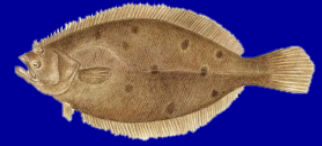
SSB

- Not overfished in 2022
- 2022 SSB = 40,994 mt, 83% of SSB_{MSY} = 49,561 mt

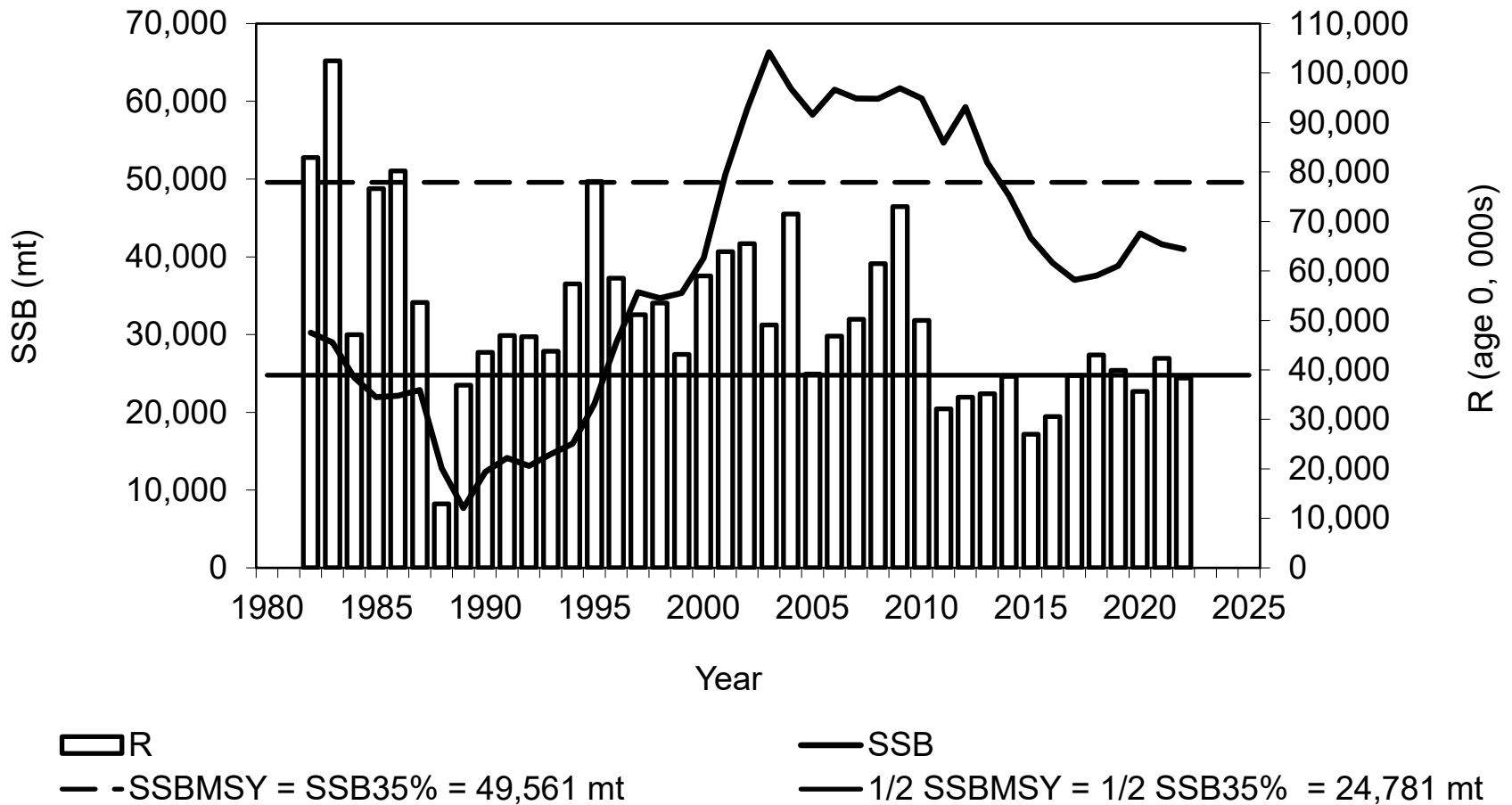
F

- Overfishing is occurring in 2022
- 2022 $F = 0.464$, 103% of F_{MSY} proxy = 0.451

SSB and Recruitment 2023 MTA

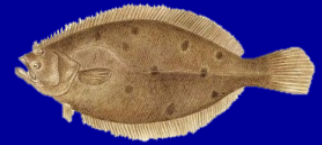


Spawning Stock Biomass (SSB) and Recruitment (R)

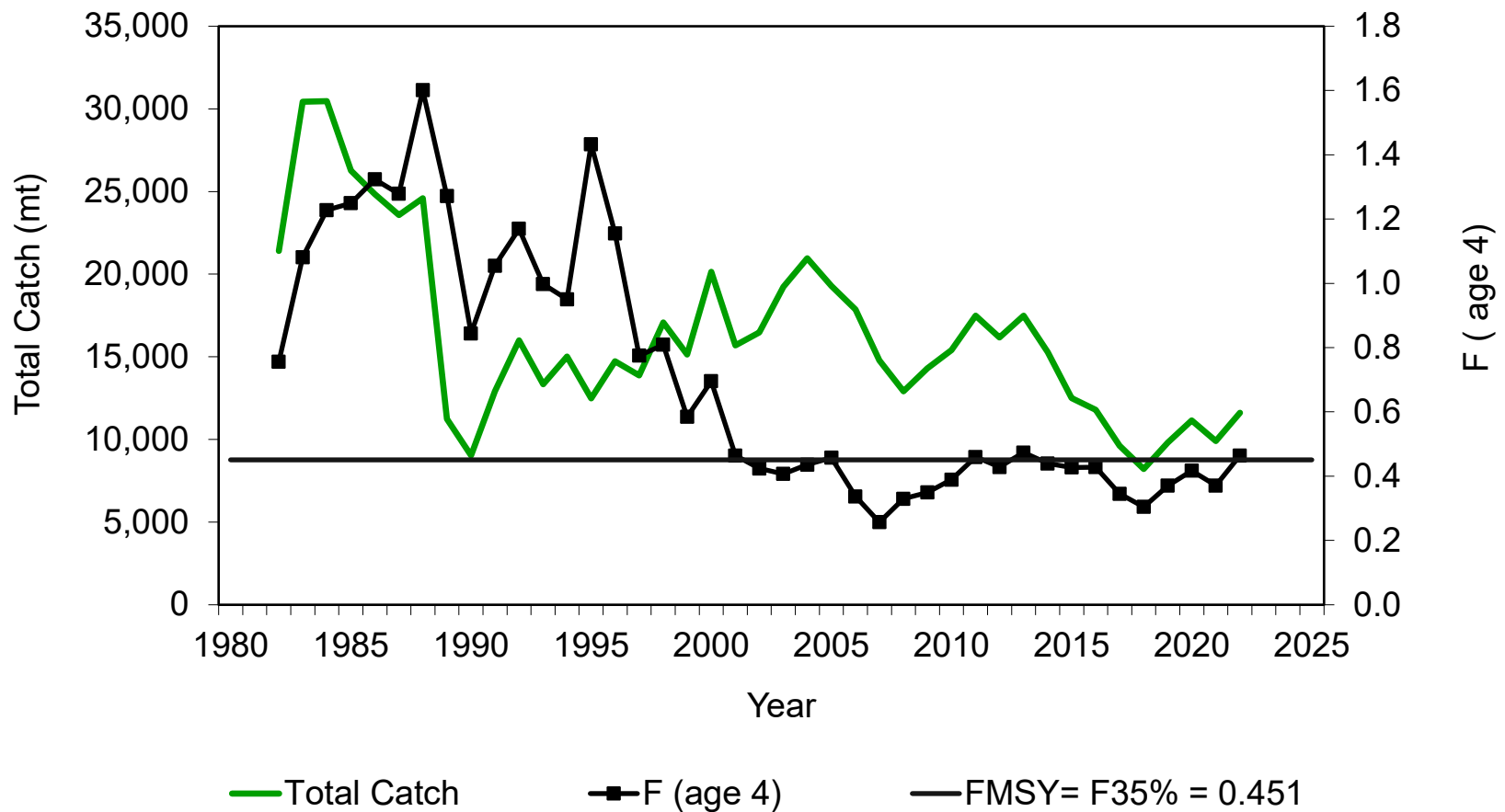


Fishing Mortality

2023 MTA



Total Catch and Fishing Mortality (F)



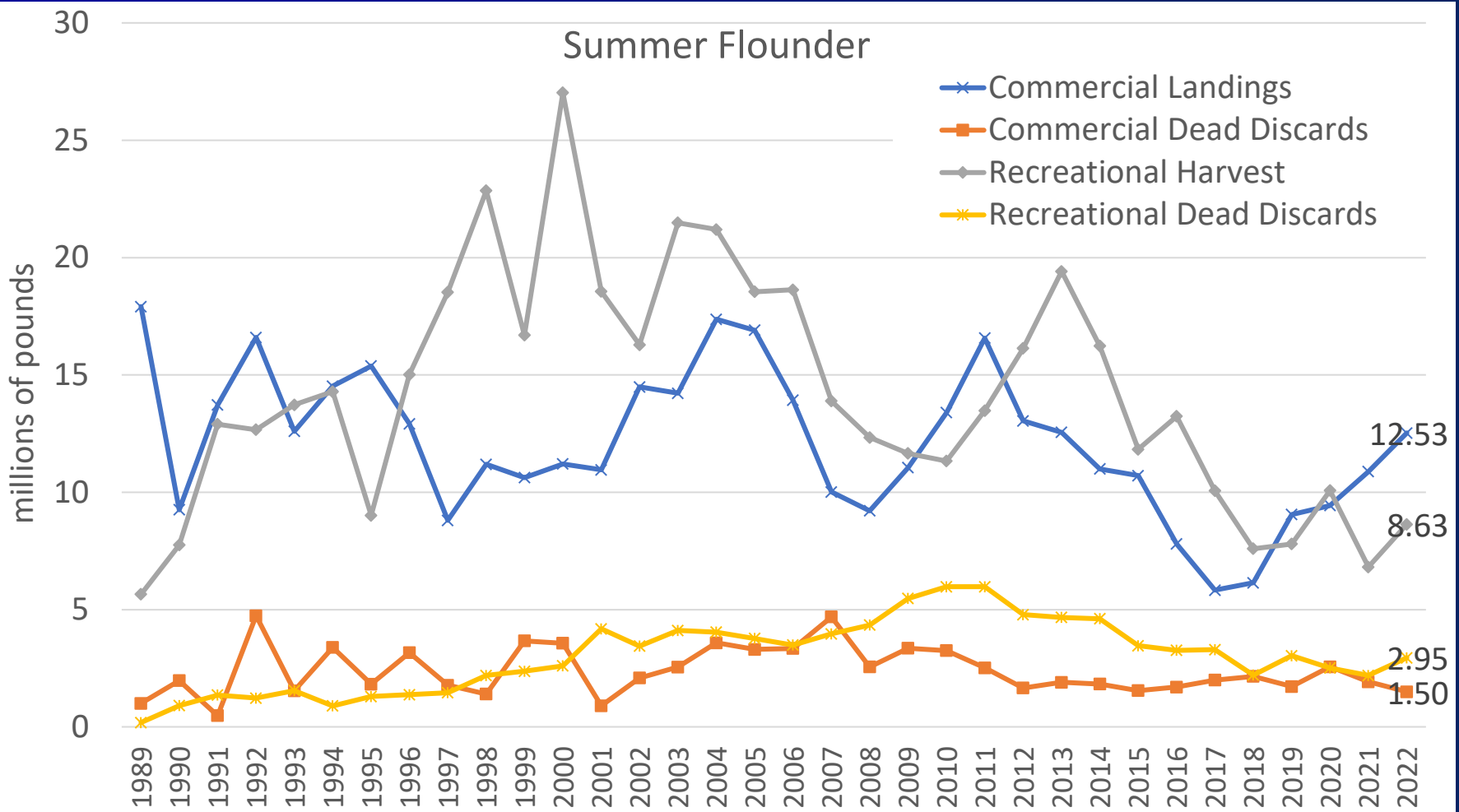
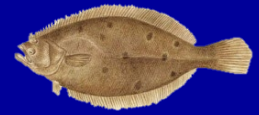
OFL and ABC Performance

Year	Total dead catch	OFL	OFL over/under	ABC	ABC over/under
2014	22.27	26.76	-17%	21.94	+2%
2015	18.22	27.06	-33%	22.57	-19%
2016	17.16	18.06	-5%	16.26	+6%
2017	12.00	16.76	-28%	11.30	+6%
2018	12.65	18.69	-32%	13.23	-4%
2019	21.63	30.00	-28%	25.03	-14%
2020	24.60	30.94	-21%	25.03	-2%
2021	21.82	31.67	-31%	27.11	-20%
2022	25.61	36.28	-29%	33.12	-23%
2023	--	34.98	--	33.12	--

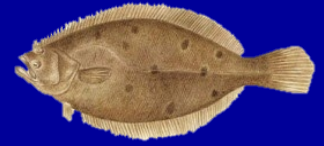
Limits/catch values in millions of pounds

Total catch calculated using old MRIP data through 2018

Fishery Landings & Discards 1989-2022



Recreational Fishery Performance



	MRIP version	Rec harvest	RHL	RHL over/under	Rec. dead disc.	Rec dead catch	ACL	ACL over/under
2018	OLD MRIP	3.35	4.42	-24%	0.97	4.32	5.53	-22%
2019	NEW MRIP	7.80	7.69	1%	3.04	10.84	11.51	-6%
2020		10.07	7.69	31%	2.52	12.60	11.51	9%
2021		6.82	8.32	-18%	2.20	9.02	12.48	-28%
2022		8.83	10.36	-17%	2.95	11.58	14.64	-21%
2023		--	10.62	--	--	--	--	14.90

2023 Preliminary Estimates

Species	2023 prelim. W1-4 harvest (mil lb)	2023 RHL (mil lb)	% of 2023 RHL
Summer flounder	6.96	10.62	66%
Scup	9.46	9.27	102%
Black sea bass	4.86	6.57	74%