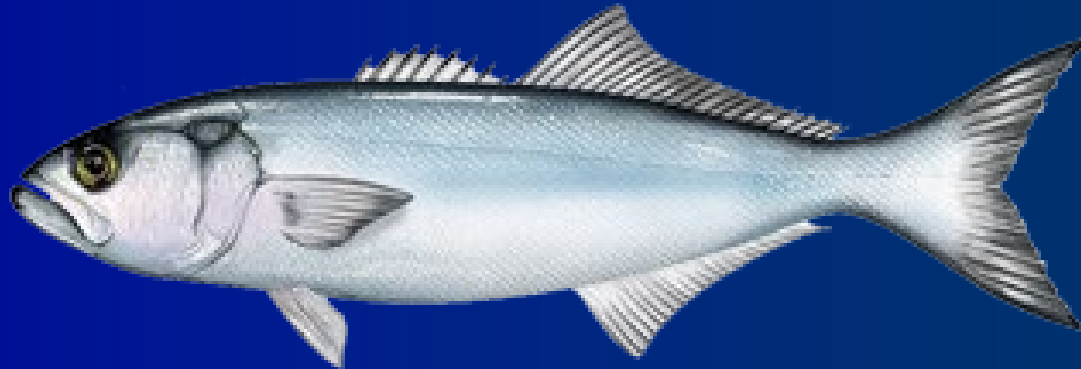




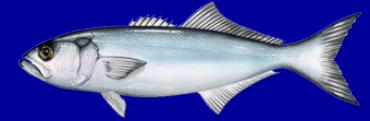
Atlantic Bluefish



Science and Statistical Committee
Meeting

July 26, 2022

Objective and Outline



SSC Objective: Review 2023 ABC

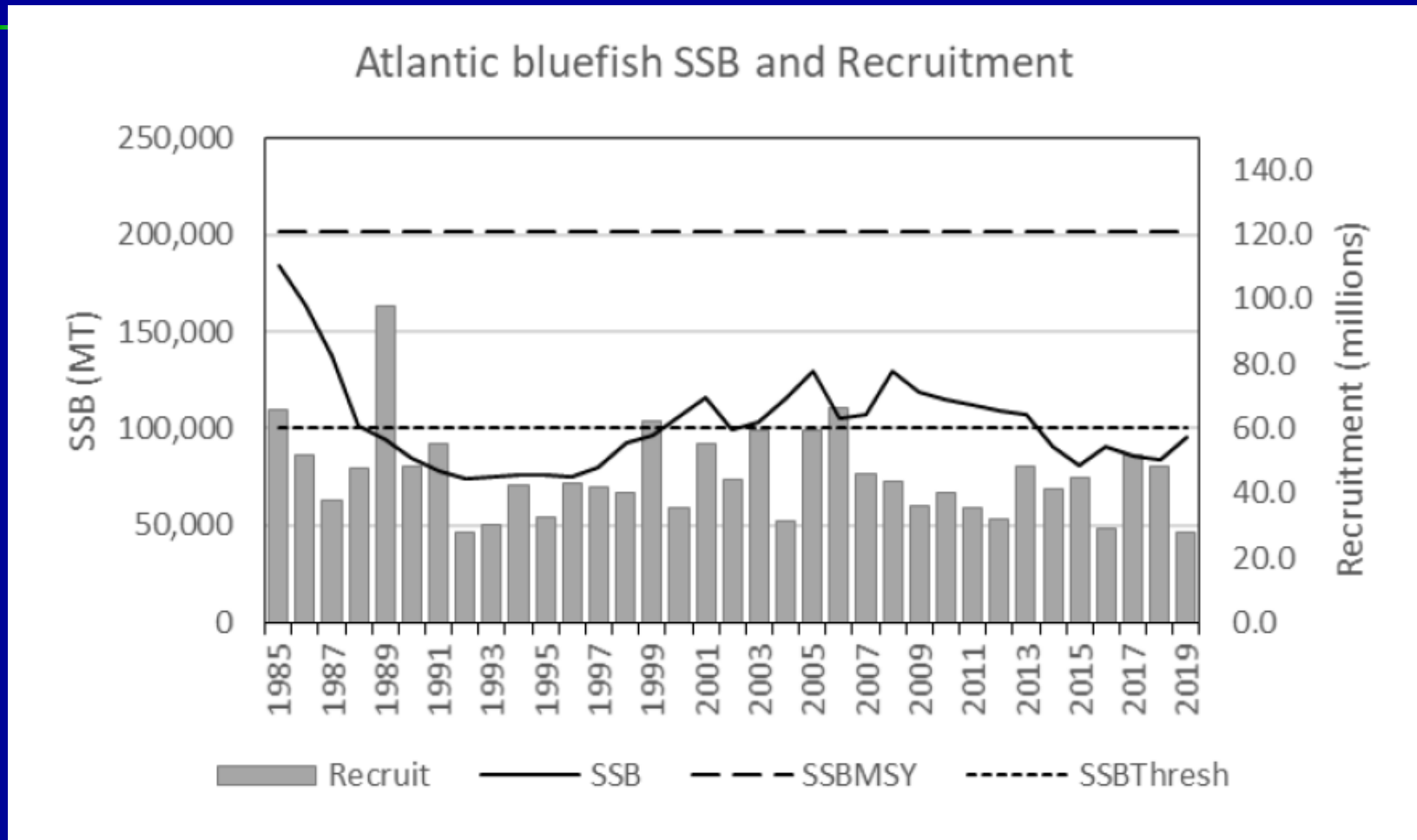
- Review stock status and NEFSC data update
- Review recent catch and measures
- AP Fishery Performance Report
- Review of previously recommended 2023 implemented ABC and staff recommendation

Stock Status



- Last assessment: 2021 Management track assessment
- Data through 2019
- Stock is overfished
- Overfishing is not occurring
- Research track assessment is ongoing throughout 2022, results will inform a 2023 MTA for 2024-2025 specifications

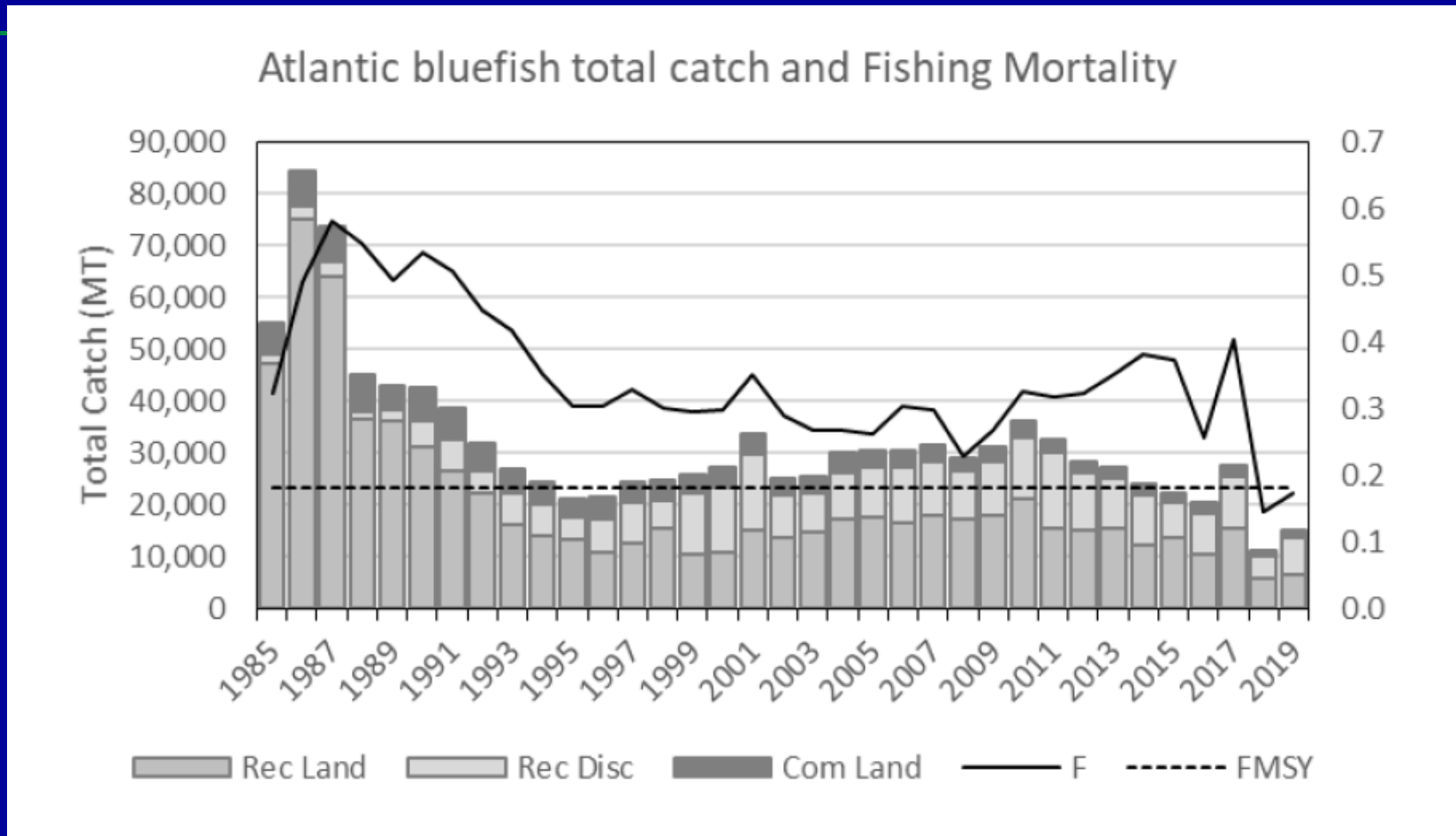
Biomass and Recruitment, 2021 MTA



Overfished

2019 SSB was 95,742 mt, below SSB_{Threshold} 100,865 mt

Catch and Fishing Mortality, 2021 MTA



Overfishing not occurring

(2019 F = 0.172; below $F_{MSY \text{ proxy}} = F_{35\%SPR} = 0.181$)

2022 NEFSC Data Update

- Rec. catch-per-unit-effort index was updated through 2021 from the MRIP intercept data: slight increase from the 2020 estimate
- 2021 NEFSC fall index value is an increase from 2019 value which was lowest in time series

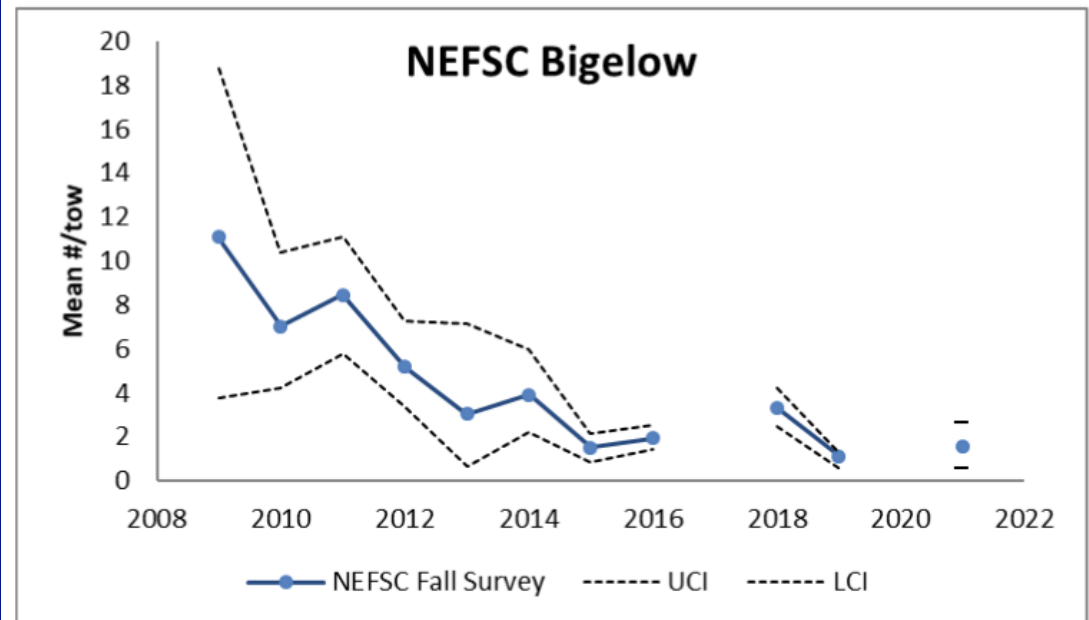
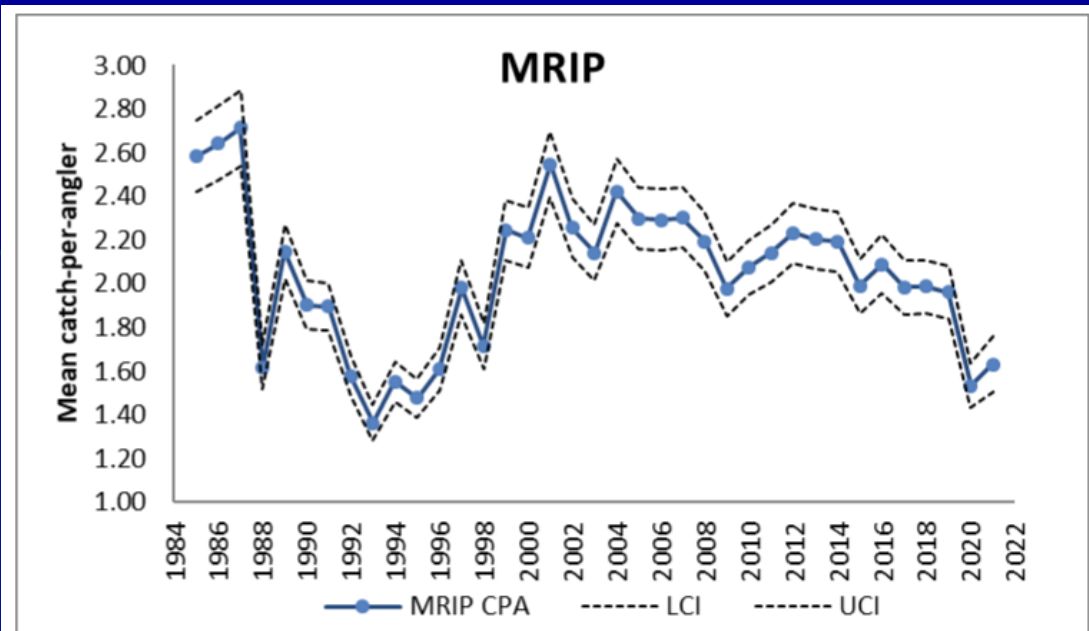


Figure 2. A. MRIP CPUE index and B. NEFSC trawl survey index for bluefish. The Bigelow did not sample southern strata in 2017 and there was no 2020 survey due to COVID.

2022 NEFSC Data Update

Year	Commercial Landings (mil lb)	Recreational Landings (mil lb)	Recreational Discards (NEFSC methodology, mil lb)
2020	2.45	13.58	8.3
2021	2.40	12.46	12.6

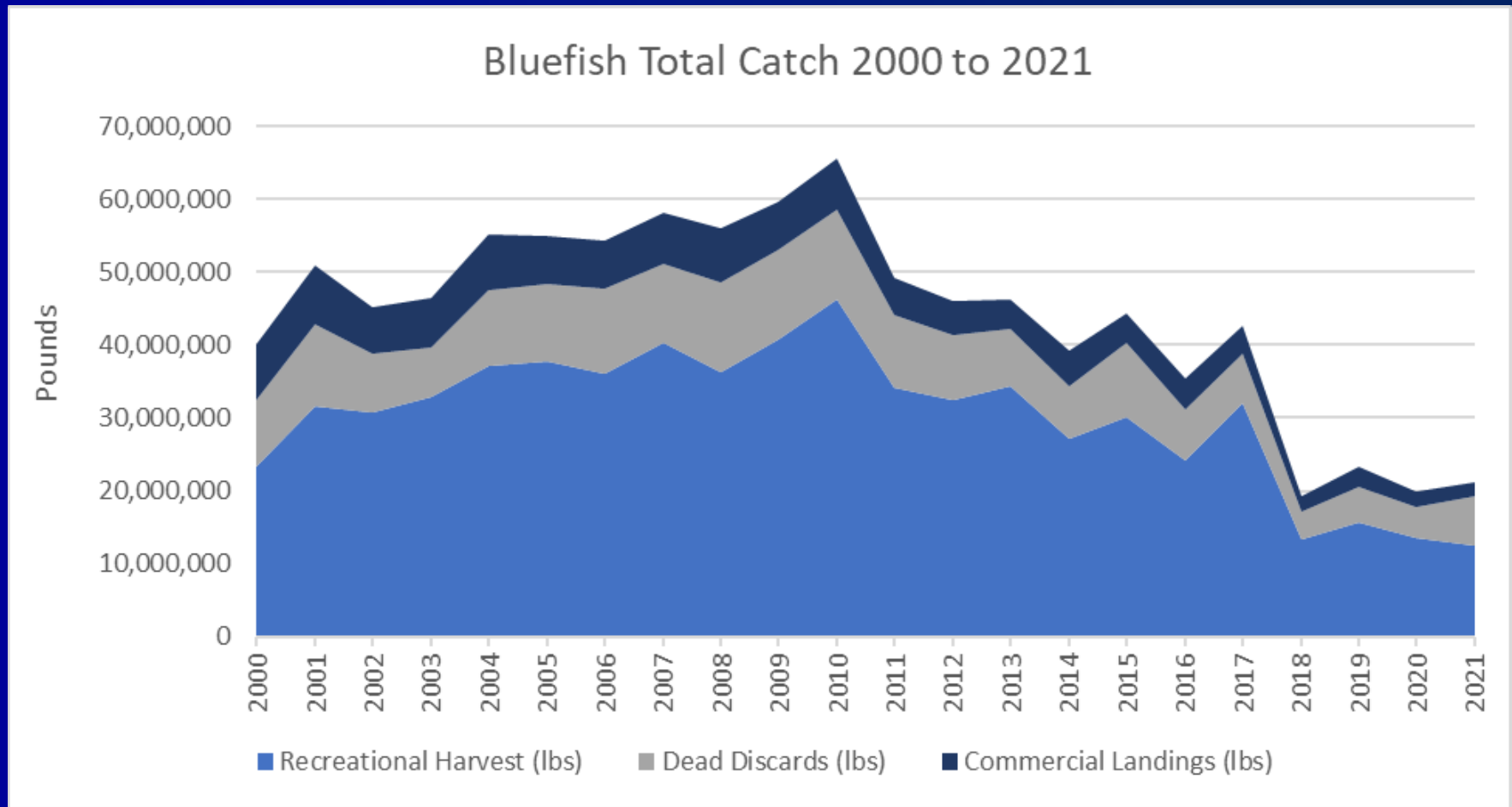
- There are currently two methods used to estimate recreational bluefish discards, GARFO vs NEFSC
- Discard estimate methodology is being evaluated in the ongoing bluefish research track assessment
 - Peer-reviewed methodology resulting from the assessment is expected to be used throughout the management process in the future

Management Measures



Management Measures	2018	2019	2020	2021	2022	2023
ABC	21.81	21.81	16.28	16.28	25.26	30.62
TAL	18.82	19.33	12.25	12.25	17.43	26.43
Comm. Quota	7.24	7.71	2.77	2.77	3.54	4.29
Comm. Landings	2.20	2.78	2.16	2.17	--	
Rec. Harvest Limit	11.58	11.62	9.48	8.34	13.89	22.14 (before payback)
Rec. Harvest, Old MRIP	3.64	--	--	--	--	--
Rec. Harvest, New MRIP	13.27	15.56	13.58	12.46	--	--
Rec. Possession Limit (# fish)	15	15	3: Private 5: For-Hire	3: Private 5: For-Hire	3: Private 5: For-Hire	3: Private 5: For-Hire
Total Landings	5.84	18.34	15.74	14.63	--	
Overage/Underage	-12.98	N/A*	+3.49	+2.38	--	
Total Catch	6.96	23.50	19.93	21.27	--	
Overage/Underage	-14.85	N/A*	+3.65	+4.99	--	

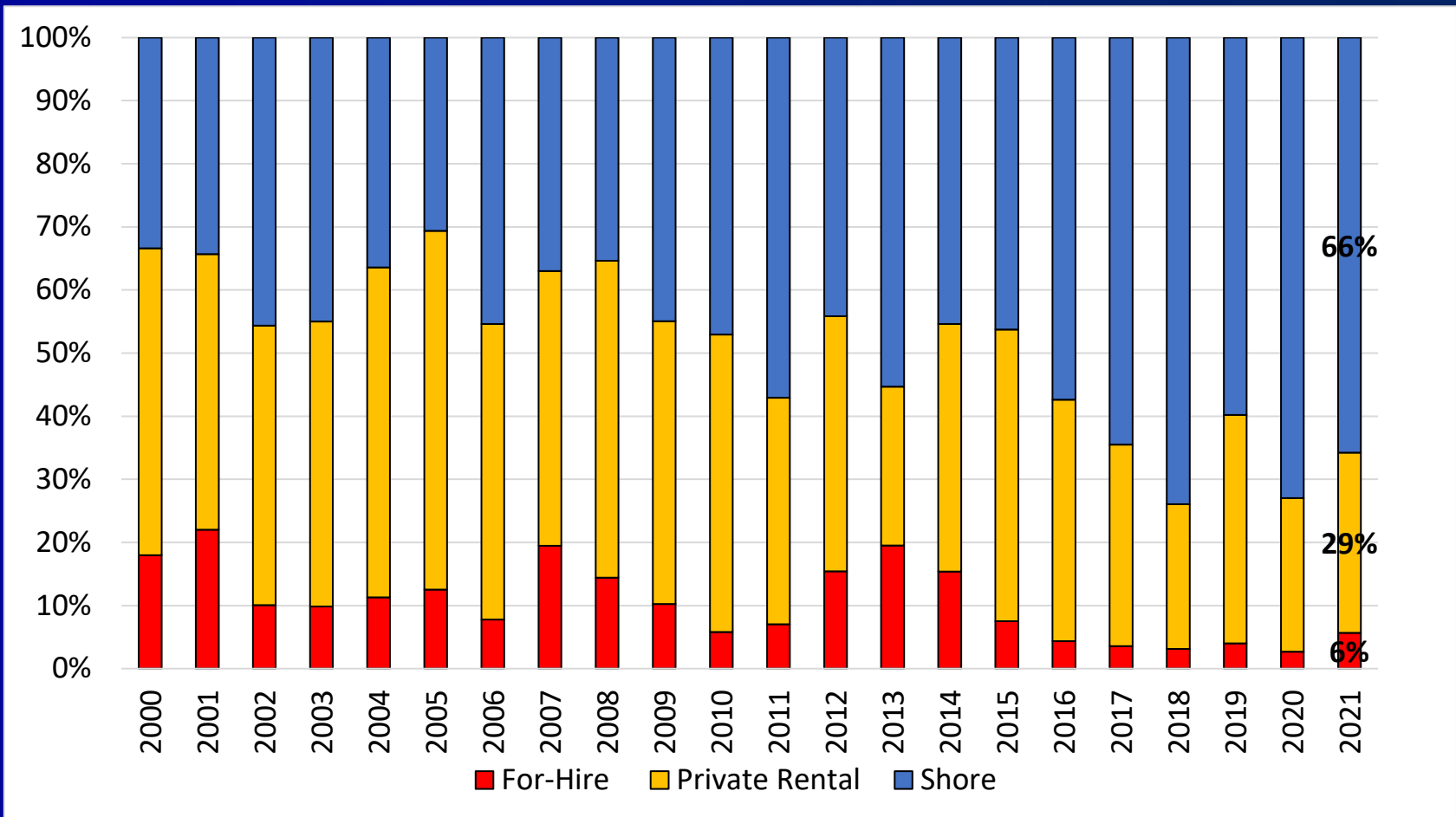
2000-2021 Bluefish Catch



Recreational Harvest



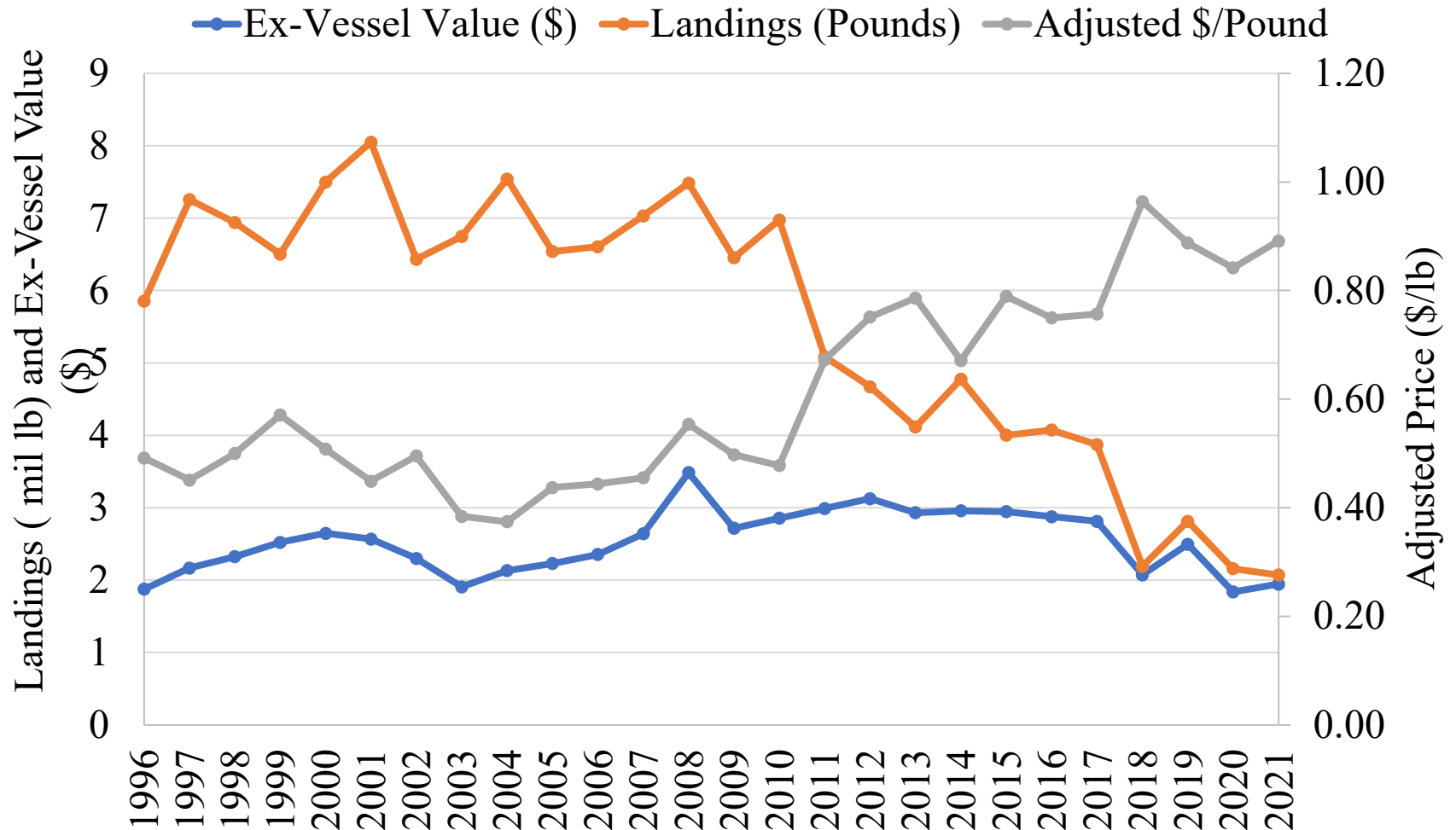
- Top harvest states: NJ, FL, NY



Commercial Fishery



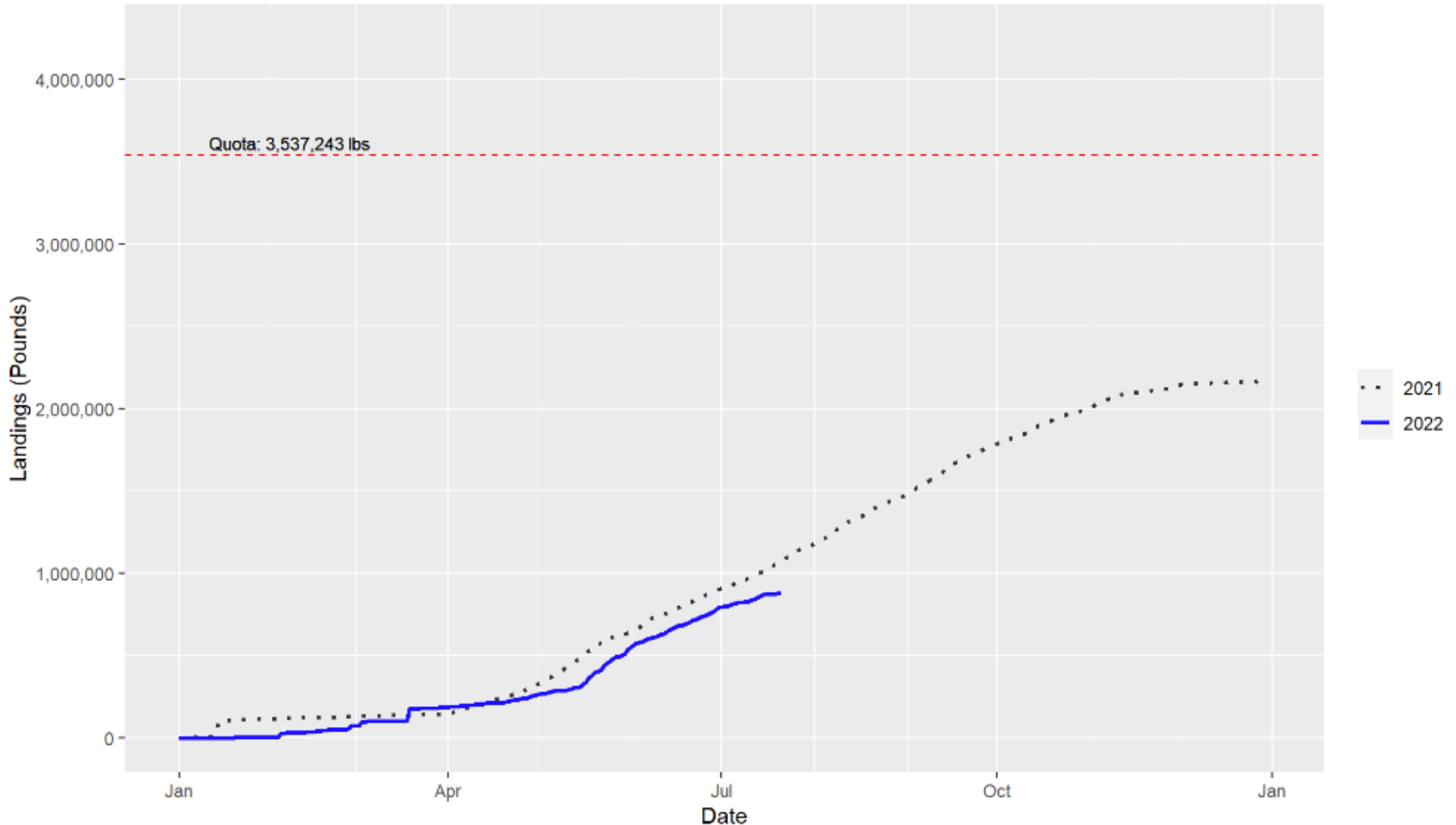
- 248 commercial vessels landed bluefish, 119 dealers purchased bluefish



Commercial Fishery



2022 Coastwide Bluefish Landings



2022 landings as of July 20, 2022 compared with 2021 landings

AP Fishery Performance Report

Environmental factors influencing catch

- Catch has been flat since the big dropoff after 2017, anglers from shore and beaches do not keep a lot of bluefish
- Last Nov. quite a few bluefish and were about 3-5 lbs
- Fish that move inshore are spillover from the population that are looking for additional forage
- In NJ, bluefish showed up late this year, possibly due to late menhaden timing
- for the FH sector in NJ, not a catch and release fishery
 - Plenty of fish last year, fall fishing is pretty good

AP Fishery Performance Report

Environmental factors influencing catch, cont'd

- RI: comm. and rec. fishing started strong last year and fell off latter half of the year, especially gillnetting
 - Giant bluefin tuna moved inshore in the fall and scared off the smaller bluefish
 - This year bluefish seems like a strong stock, people are reaching their quotas quickly
- ME: bf were historically important for the for-hire trips, especially in Aug. when other species' seasons close. As the population has decreased there have been very few bluefish in ME and NH for the past 5 years
- MA: more bluefish in the fall last year especially south side of the cape

AP Fishery Performance Report

Environmental factors influencing catch, cont'd

- Bluefish dealer/smokehouse owner from RI purchases bluefish up and down the coast
 - Used to see bigger fish but now they are much smaller, except this year, started getting really big fish
 - Environmental shift has likely caused big bluefish to go offshore
 - In RI when tuna moved in close to shore it affected inshore gillnetters, less fish, however those fishing 10-11 miles south of block island were catching a lot and were only restricted by quota
 - In the fall, bluefish were coming by RI offshore
- DE/MD area: aren't seeing tiny snappers or jumbos but good supply of fish around 28 inches, bf have been in the surf and going into estuaries, new fishing opportunities

AP Fishery Performance Report

Environmental factors influencing catch, cont'd

- One advisor commented that CT's average weight for bluefish seems difficult to believe, too small
 - Other AP members commented that the snapper fishery is common in CT and the high number of snappers can explain the low average weight per fish

Market/economic and management issues

- Discard mortality rate of 15% seems high, treble hooks make it harder to release, choosing to fish with a single hook may increase survival
- No AP members from Florida were present, however, one advisor noted that they have heard anglers are upset about the minimum size limit in the state

AP Fishery Performance Report

Market/economic and management issues

- Implications of the 2021 RHL overage, Staff discussed that the Monitoring Committee and Council and Board would consider that when setting 2023 recreational measures.
- Five AP members supported an increase in bag limit for the for-hire sector
 - Four specified that this could be supported with implementation of a minimum size for this sector
 - One advisor did not support different bag limits across modes
 - One advisor discussed benefits of sector separation in Gulf of Mexico between private and for-hire
- Two advisors supported investigating a small but reasonable min. size to help protect the stock
- One advisor said regs. do not have a big impact on angler behavior or the health of the stock, catch and release fishery

AP Fishery Performance Report

Research priorities

- More research is needed on release mortality and single hook lures should be promoted along with a circle hook requirement
- Research the large-scale cyclical nature of bluefish
- Research the impact of the snapper fishery on the stock, what is the impact of removing a lot of these small bluefish from the future population

Email comments

- 6-pack charter boat operator: current bag limit is completely fine, we catch a ton of blues and release about 90%
- Small baitfish such as sand eels and silversides you will find plenty of smaller blues.
- When menhaden are around you will find the larger (alligator) bluefish. No big bunker= No big blues.

Previously Recommended 2023 ABC

- July 2021: the SSC recommended ABCs for 2022-2023, based on 2021 MTA and Council approved rebuilding schedule.
 - A constant F strategy, biomass in 2028 has a 50% chance of exceeding the Bmsy proxy rebuilding target
 - SSC determined that the constant F for rebuilding in seven years should be treated as a Fmsy proxy
 - The SSC recommended an OFL CV of 100%
- 2023 SSC rec. ABC = 30.62 million pounds, 13,890 mt.

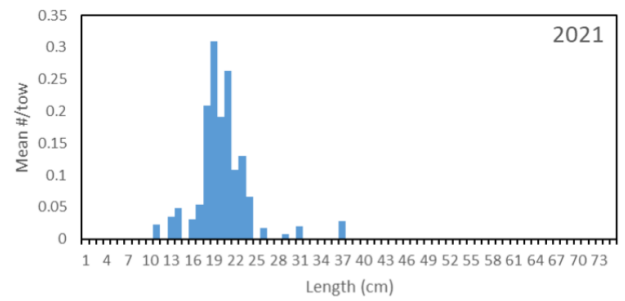
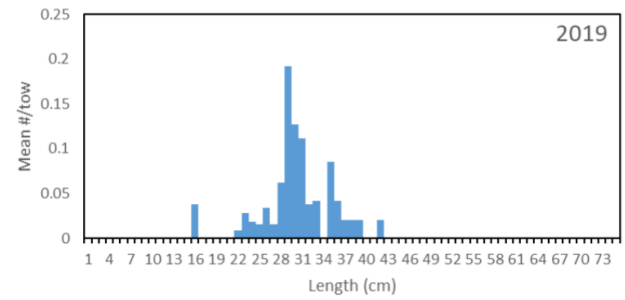
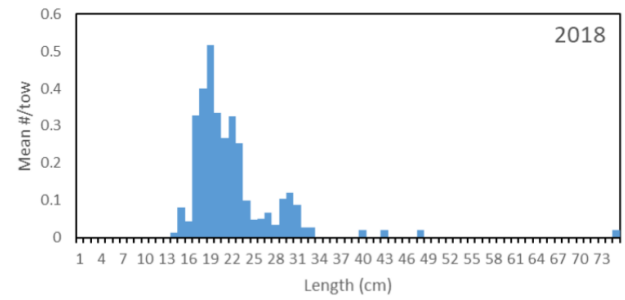
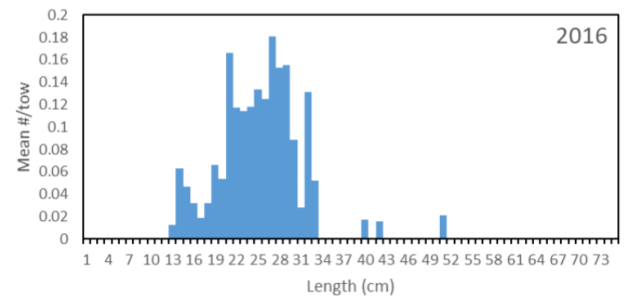
Staff Recommended 2023 ABC

- 2023 ABC = 30.62 million pounds, 13,890 mt
- Maintain previously implemented 2023 ABC
- NEFSC data update does not show major shifts compared with previous understanding of the stock
- Ongoing 2022 research track assessment is addressing several areas of uncertainty
 - Next year those results can inform the 2024-2025 specifications package
- SSC Objective: Review 2023 ABC

Thank you!



Extra slides



SSC rec. in 2021

<u>Year</u>	<u>ABC (mt)</u>
2022	11,460
2023	13,890
2024	16,960
2025	19,094
2026	22,103

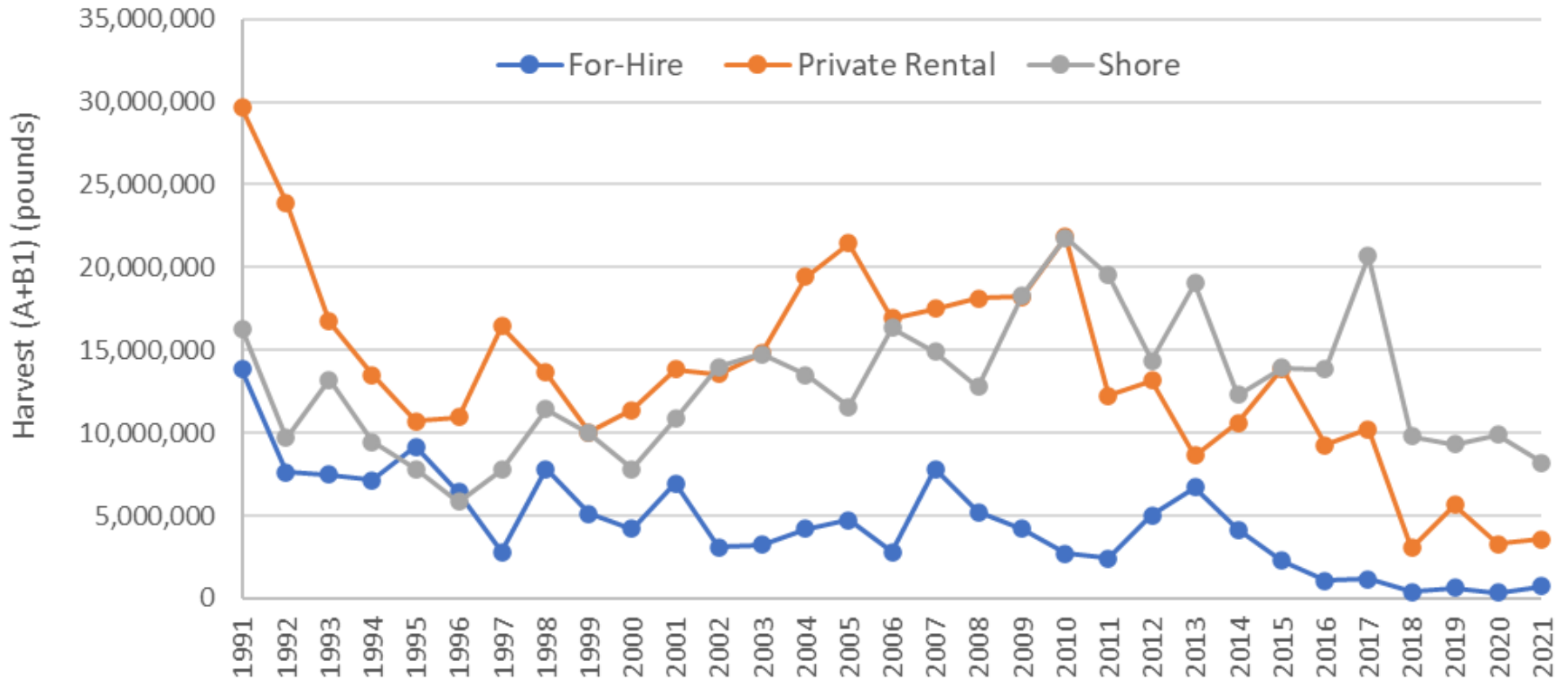
2021 Rec. Catch Accounting

2021 Recreational Value	Millions of Pounds
Landings	12.46
Dead discards	6.64
Catch	19.10
Rec. ACL	13.51
Rec. ACL overage	+5.59

2021 rec catch by state

State	Harvest			Catch	Total Released	Dead Discards
	Pounds	Number	Average Weight ¹ (pounds)	Number	Number	Number
ME	3,633	673	5.4	6,104	5,431	815
NH	3,796	698	5.4	698	-	-
MA	833,962	116,547	7.2	855,041	738,494	110,774
RI	718,950	140,504	5.1	774,409	633,905	95,086
CT	206,429	263,966	0.8	1,180,092	916,126	137,419
NY	2,353,527	861,060	2.7	3,565,667	2,704,607	405,691
NJ	3,357,809	921,667	3.6	2,895,008	1,973,341	296,001
DE	8,460	14,019	0.6	179,562	165,543	24,831
MD	117,545	105,711	1.1	316,949	211,238	31,686
VA	153,199	216,317	0.7	719,804	503,487	75,523
NC	1,031,761	982,391	1.1	4,521,724	3,539,333	530,900
SC	107,268	172,528	0.6	722,532	550,004	82,501
GA	12,870	13,811	0.9	136,588	122,777	18,417
FL	3,553,572	2,373,891	1.5	13,875,822	11,501,931	1,725,290
Total	12,462,781	6,183,783	-	29,750,000	23,566,217	3,534,932

Recreational Landings by Mode



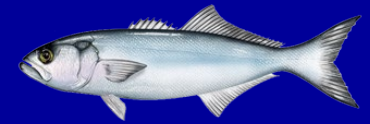
Bluefish Amendment



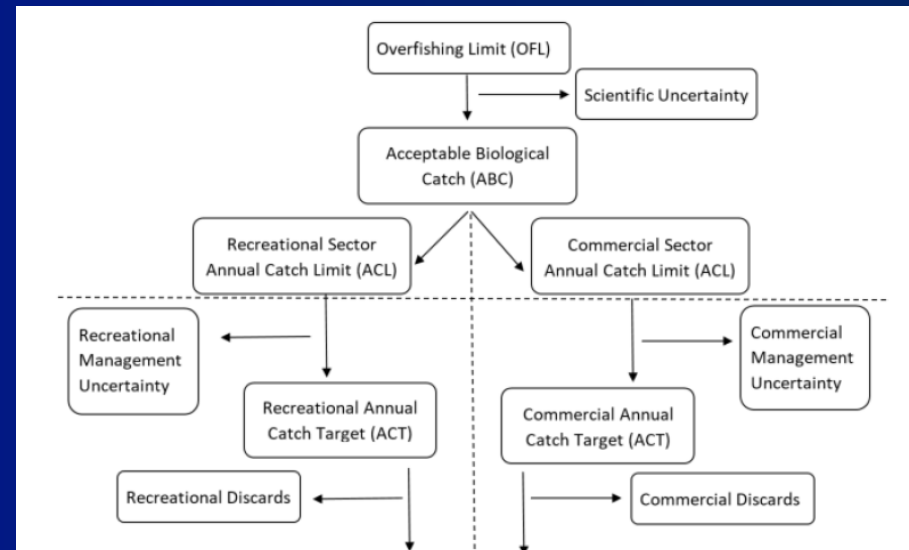
- Proposed FMP Goals and Objectives
- Sector Allocations
 - From: 83% Rec,
17% Comm
 - To: 86% Rec,
14% Comm
- Commercial Allocations to the States

State	Previous Allocations Under Amendment 1	Revised Allocations to be Phased in Over 7 Years
Maine	0.67%	0.11%
New Hampshire	0.41%	0.22%
Massachusetts	6.72%	10.12%
Rhode Island	6.81%	9.61%
Connecticut	1.27%	1.09%
New York	10.39%	19.76%
New Jersey	14.82%	13.85%
Delaware	1.88%	0.49%
Maryland	3.00%	1.92%
Virginia	11.88%	5.87%
North Carolina	32.06%	32.03%
South Carolina	0.04%	0.10%
Georgia	0.01%	0.10%
Florida	10.06%	4.78%

Bluefish Amendment Preferred Alternatives



- Rebuilding Plan: 7-year Constant Fishing Mortality
- Sector Transfers:
 - Bi-directional instead of just recreational to commercial
 - Transfer cap = 10% of ABC
- Management Uncertainty
 - Post-sector split
- *De minimis*
 - Status quo



Research Priorities



■ 2019 Operational Assessment

- Improve characterization of recreational discard lengths and weights

■ 5-year research priorities

- Evaluate species associations with recreational angler trips targeting bluefish to potentially modify the bluefish recreational CPUE index used in the assessment.
- Evaluate methods for integrating disparate indices produced at multiple spatial and temporal scales into a stock-wide assessment model
- Evaluate changes in selectivity of age-0 bluefish in fishery independent surveys due to shifting environmental conditions. Investigate trends in recruitment.
- Conduct a post-release mortality study to determine if the recreational discard mortality rate has changed over time.
- Investigate the assumption of zero discards in the commercial fishery.

Table 1—Comparison of Initial and Revised Commercial Quota
Allocations Among the Atlantic States

State	Old commercial quota allocation (in percent)	Revised commercial quota allocation (in percent)
Maine	0.67	0.01
New Hampshire	0.41	0.12
Massachusetts	6.72	10.16
Rhode Island	6.81	9.64
Connecticut	1.27	1.00
New York	10.39	19.94
New Jersey	14.82	13.94
Delaware	1.88	0.40
Maryland	3.00	1.84
Virginia	11.88	5.85
North Carolina	32.06	32.38
South Carolina	0.04	0.00
Georgia	0.01	0.00
Florida	10.06	4.75

2023 proposed measures

	2021		2022		2023	
	Million lb	Metric tons	Million lb	Metric tons	Million lb	Metric tons
Overfishing Limit	32.98	17,228	40.56	18,399	45.17	20,490
ABC = Fishery ACL	16.28	7,385	25.26	11,460	30.62	13,890
Commercial ACL = Commercial ACT	2.77	1,255	3.54	1,604	4.29	1,945
Recreational ACL = Recreational ACT	13.51	6,130	21.73	9,856	26.34	11,945
Recreational Accountability Measures	0	0	3.65	1,656	0	0
Commercial Total Allowable Landings (TAL)	2.77	1,255	3.54	1,604	4.29	1,945
Recreational TAL	8.34	3,785	13.89	6,298	22.14	10,044
Sector Transfer	0	0	0	0	0	0
Commercial Quota	2.77	1,255	3.54	1,604	4.29	1,945
RHL	8.34	3,785	13.89	6,298	22.14	10,044