Black Sea Bass 2023 Recreational Measures

Monitoring Committee Meeting

November 15, 2022

MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

ATLANTIC STATES MARINE FISHERIES COMMISSION

Meeting Objectives

- Recommend estimate of 2023 harvest under 2022 measures and associated CI.
- Determine appropriate percent change in harvest required under the Percent Change Approach.
- Recommend use of coastwide measures or conservation equivalency for 2023.
- Recommend 2023 precautionary default and non-preferred coastwide measures under conservation equivalency.

Column 1 **2023 RHL vs expected harvest under 2022 measures**	*Column 2* **Biomass compared to target level** (SSB/SSB_{MSY})	*Column 3* **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%**

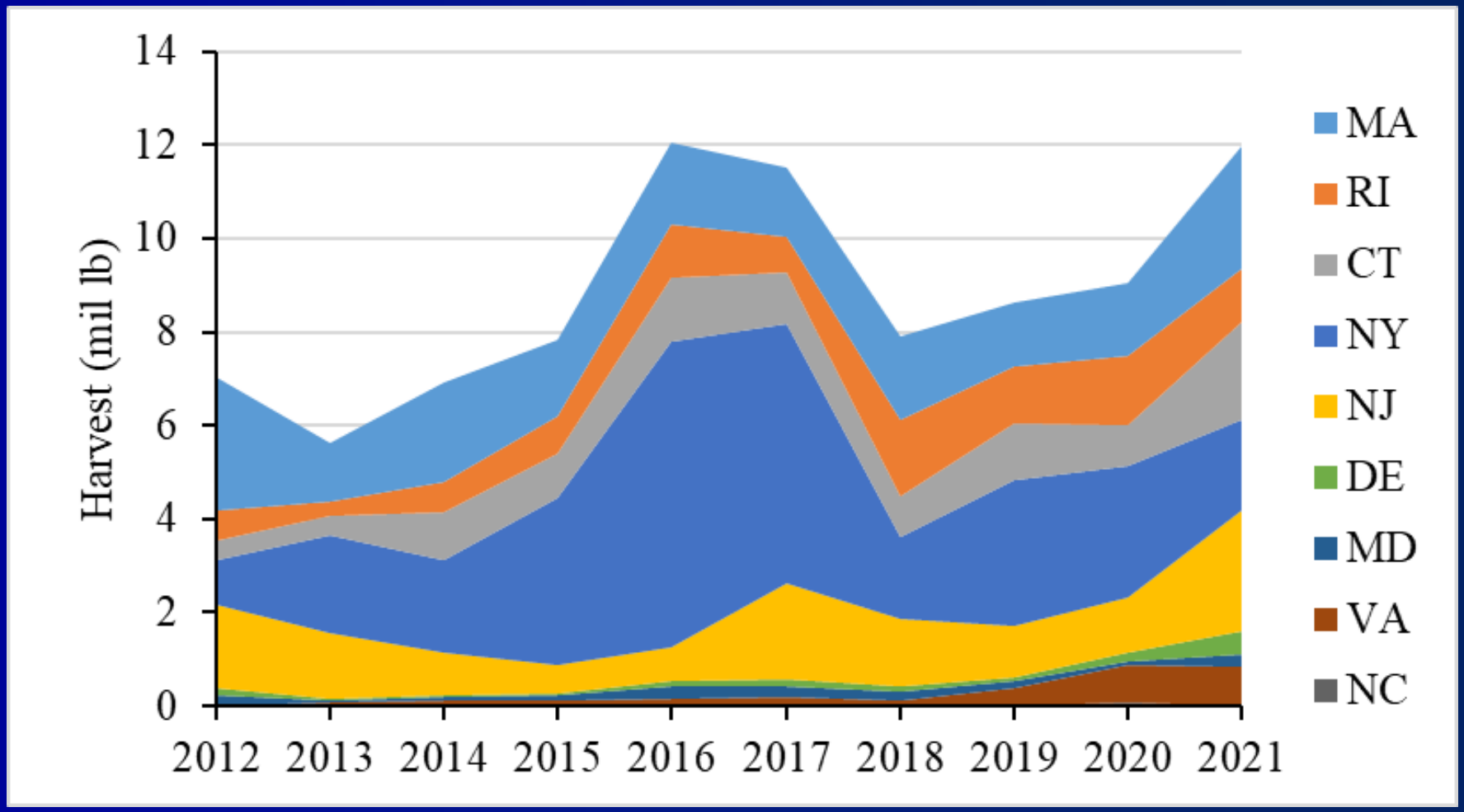
2022 State Measures

State	Min. Size	Bag Limit	Open Season
ME	13″	10 fish	May 19-Sept 21; Oct 18-Dec 31
NH	13″	10 fish	Jan 1 - Dec 31
MA	16″	4 fish	May 21- Sept 4
RI private & shore	16″	2 fish	May 22-Aug 31
		3 fish	Sept 1-Dec 31
RI for-hire		2 fish	June 18-August 31
		6 fish	September 1-December 31
CT private & shore	16″	5 fish	May 19-December 1
CT authorized party/charter monitoring program vessels		5 fish	May 19-August 31
		7 fish	September 1-December 31
NY	16″	3 fish	June 23-August 31
		6 fish	September 1-December 31
NJ	13″	10 fish	May 17-June 19
		2 fish	July 1-August 31
		10 fish	October 7-October 26
		15 fish	November 1-December 31
DE – NC (north of Hatteras)	13″	15 fish	May 15-December 11

2022 Conservation Equivalency

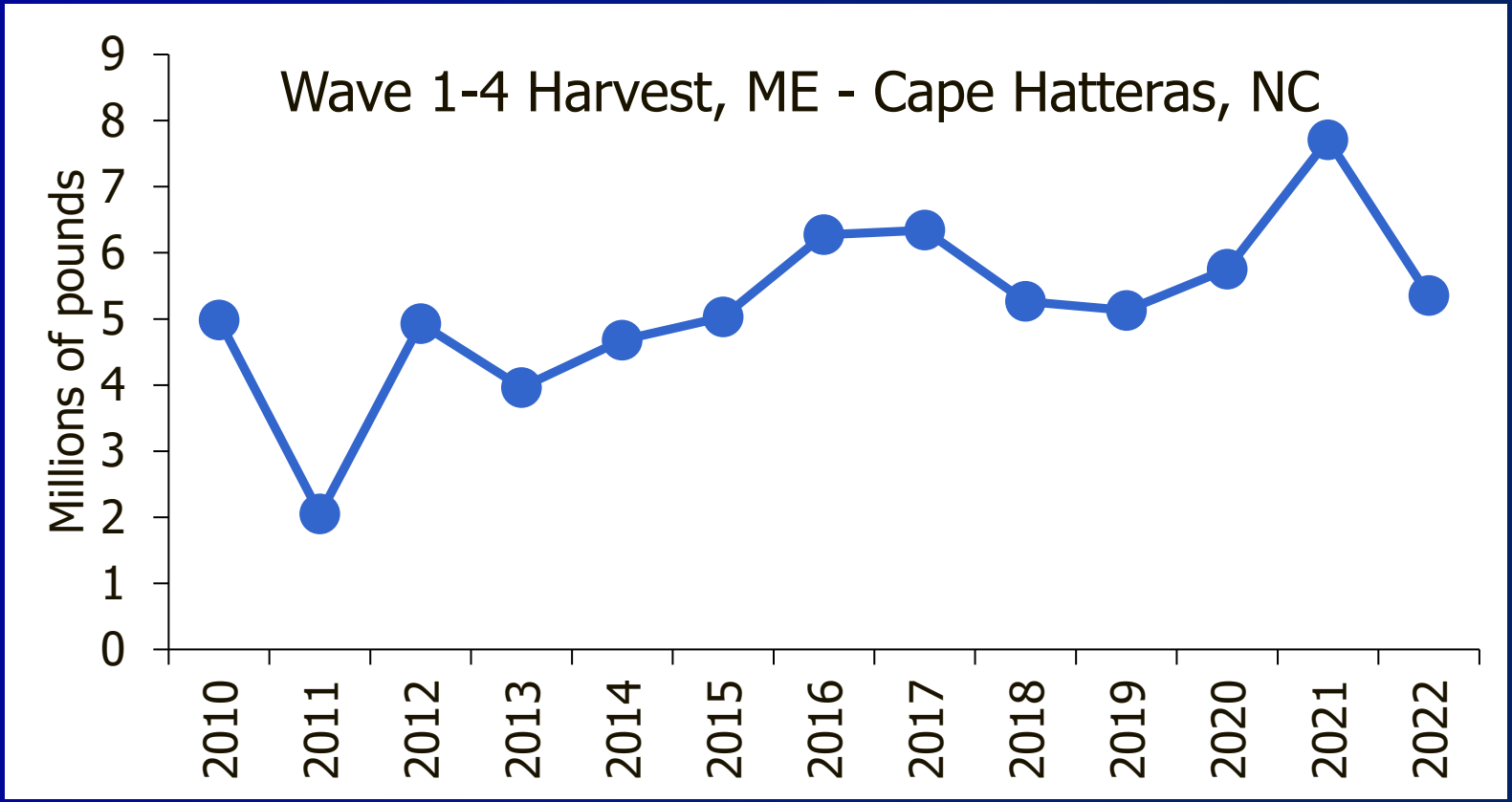
- Non-preferred coastwide measures
  - Implemented in federal regulations, but waived in favor of state regulations
  - 14-inches, 5 fish, May 15 - Oct 8
- Precautionary default
  - "Deterrent" measures
  - 16-inch TL, 3 fish, June 24 – Dec 31

Rec. Harvest by State, 2012-2021



Preliminary 2022 Wave 1-4

- 5.36 mil lb
- 31% lower than 2021 wave 1-4
- Within 1% of 2018-2020 avg wave 1-4



2023 Harvest Under 2022 Measures

- First step under Percent Change Approach.
- Staff recommend using RDM or RFDM.
- RDM and RFDM produce similar estimates.
- 2023 RHL is outside **all** CIs shown below.
  - I.e., harvest very likely to exceed 2023 RHL if measures left unchanged.

Model	Estimated 2023 harvest under 2022 measures	95% CI	90% CI	80% CI	2023 RHL
RDM (median)	**11.05**	**9.17 – 13.29**	**9.53 – 12.67**	**10.00 – 11.96**	**6.74**
RFDM* (median)	**11.96**	**6.93 – 20.86**	**7.49 – 18.98**	**8.17 – 16.81**	

* *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).

Confidence Intervals

- 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 Recommendation

- **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 Percent Change bin
      - E.g., liberalization when a reduction may be more appropriate and vice versa
- Staff recommend same percentage CI be used for all 3 species

Resulting Percent Change for 2023

- 10% reduction needed.
- Applied to estimate of 2023 harvest under 2022 measures.
- Based on model results from previous slide:
  - 9.95 mil lb 2023 harvest target based on RDM
  - 10.76 mil lb 2023 harvest target based on RFDM *(updated since briefing memo finalized)*

Column 1 **2023 RHL vs expected harvest under 2022 measures**	*Column 2* **Biomass compared to target level** (SSB/SSB_{MSY})	*Column 3* **Change in Harvest**
RHL less than lower bound of expected harvest CI (RHL overage expected)	**Very high** greater than 150% of target	**Reduction: 10%**

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. ACL	Rec. harvest	Rec. dead discards	Rec. dead catch	% Over (+) or Under (-) ACL
2019 old MRIP	4.59	3.46[a]	0.50[a]	3.96[a]	-14%
2020 new MRIP	8.09	9.05	3.46[b]	12.50	+55%
2021 new MRIP	7.93	11.97	4.20[b]	16.16	+104%
2019-2021 avg	**6.87**	**8.16**	**2.72**	**10.87**	**+58%**

[a] Provided to GARFO by the NEFSC.

[b] Provided by GARFO based on alternative methods due to lack of discard data in weight using typical methods.

Accountability Measures

- GARFO letter to Council: Due to recent actions taken by Council/Commission, no additional action needed beyond changes required by Percent Change Approach.
- All CIs shown on previous slide would require 10% reduction, regardless of AMs.
- 95% CI under previous RFDM model run (prior to addition of 2021 data) could result in 10% liberalization which may not be justifiable given triggering of AMs.
- Staff recommend no additional restrictions beyond 10% reduction.

Staff Recommendation for Measures

- Continued use of conservation equivalency for 2023 to waive federal waters measures.
- **Current non-preferred coastwide measures are too liberal** - 14 inches, 5 fish, May 15 – Oct 15.
  - Based on RDM, would result in 12.72 mil lb, vs 9.95 mil lb harvest target under 10% reduction.
  - Increasing min. size by 1” results in 10.61 mil lb of harvest, still 7% higher than 9.95 mil lb harvest target.
  - Due to time constraints, additional model runs not performed prior to finalizing this presentation.
- **Staff recommend 1” increase with additional bag and/or season changes. MC should provide specific recommendations.**

Staff Recommendation for Measures

- Staff also recommend revisions to precautionary default measures.
- Currently 16”, 3 fish, June 24 – Dec 31.
- Considering current measures in each state and need to restrict harvest by 10% in 2023, current precautionary default measures may not be sufficient.
- Staff recommend revisions to 16”, 2 fish, June 1 – August 31.

VA 2023 February Opening

- VA is proposing the same process for opening their February fishery and monitoring February harvest as prior years.
- The Board will consider approval of this proposal on Dec. 13.
- ASMFC staff will follow up with TC via email with details of proposal.
- Can discuss today if there are any major concerns.

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 use of coastwide measures or conservation equivalency for 2023.
  - *Staff recommend conservation equivalency.*
- Recommend 2023 precautionary default and non-preferred coastwide measures under conservation equivalency.
  - *Staff recommend 1" increase in min. size plus additional bag and/or season restrictions for coastwide non-preferred.*
  - *Staff recommend 16", 2 fish, June 1 – Aug 31 for prec. default.*
- Any concerns with VA Feb proposal?
  - *Staff have no concerns.*

Backup Slides

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 payback = *(overage amount) * (Bmsy−B)/½ Bmsy*. 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.

Year	Rec. harvest		RHL	RHL overage/ underage[b]	Rec. dead discards		Rec. dead catch		ACL	ACL overage/ underage[b]
	Old MRIP units	New MRIP units			Old MRIP units[a]	New MRIP units[c]	Old MRIP units	New MRIP units		
2012	3.26	7.04	1.32	+147%	0.80	2.31	4.07	9.35	1.86	+119%
2013	2.64	5.69	2.26	+17%	0.65	1.65	3.29	7.34	2.9	+13%
2014	3.85	7.24	2.26	+70%	0.84	1.85	4.69	9.09	2.9	+62%
2015	4.11	9.06	2.33	+76%	0.82	2.17	4.93	11.23	2.9	+70%
2016	5.19	12.05	2.82	+84%	1.21	3.07	6.40	15.12	3.52	+82%
2017	4.50	11.50	4.29	+5%	1.27	3.60	5.77	15.10	5.38	+7%
2018	3.82	7.92	3.66	+4%	1.1	2.28	4.92	10.20	4.59	+7%
2019	3.46	8.61	3.66	-5%	0.5	3.24	3.96	11.85	4.59	-14%
2020	NA	9.05	5.81	+56%	NA	3.46	NA	12.51	8.09	+55%
2021	NA	11.97	6.34	+89%	NA	4.20	NA	16.17	7.93	+104%

[a] Based on the data update provided by the NEFSC in 2018 (most recent data from NEFSC in "old" MRIP units). Values for 2018 and 2019 were provided by GARFO.

[b] Based on a comparison with old MRIP data through 2019 and new MRIP data starting in 2020.

[c] Values through 2019 are from the 2021 management track stock assessment. Values for 2020-2021 were provided by GARFO.

Average proportion of black sea bass recreational harvest in weight from federal and state waters, 2019-2021.

State	Federal waters	State waters
MA	6%	94%
RI	27%	73%
CT	21%	79%
NY	41%	59%
NJ	68%	32%
DE	96%	4%
MD	99%	1%
VA	88%	12%
NC	83%	17%

Proportion of recreational black sea bass harvest in weight by wave within each state in 2021. North Carolina is the only state in the management unit which conducts MRIP sampling during wave 1 (Jan/Feb).

State	Wave 1 Jan/Feb	Wave 2 Mar/Apr	Wave 3 May/Jun	Wave 4 Jul/Aug	Wave 5 Sept/Oct	Wave 6 Nov/Dec
MA	0%	0%	89%	8%	3%	0%
RI	0%	0%	2%	46%	40%	12%
CT	0%	0%	35%	14%	50%	2%
NY	0%	0%	13%	29%	31%	27%
NJ	0%	0%	58%	13%	14%	15%
DE	0%	0%	19%	18%	15%	48%
MD	0%	0%	54%	13%	25%	9%
VA	0%	0%	52%	17%	10%	22%
NC	3%	10%	34%	30%	16%	6%
ME-NC	0%	0%	46%	18%	23%	13%

Next Steps

- AP meeting – Nov 30
- Council/Board meeting – Dec 13. Will adopt:
  - Overall % change
  - 2023 non-preferred coastwide and precautionary default measures for SF and BSB
  - 2023 federal waters measures for scup
- TC meeting #1 – early 2023
  - Establish guidelines for state/regional proposals
- States/regions submit proposals - early 2023
- TC meeting #2 – early 2023
  - Review state/regional proposals
- Board meeting – early 2023
  - Review state/regional proposals and TC recommendations. Consider approval of proposals.

2023 Process

1) What is expected 2023 harvest under 2022 measures, including CI?
2) How do these CIs compare to the 2023 RHLs?
3) When combined with relevant biomass category, what percent change in harvest should measures aim to achieve?
4) Are additional changes needed due to the triggering of AMs?
5) What non-preferred coastwide and precautionary default measures are recommended for BSB?
6) What state waters measures are recommended?

Yellow = to be recommended by MC