



Black Sea Bass

2023 Specifications Review



Council and Board Meeting
August 9, 2022

Overview



■ Review:

- Stock status
- Recent catch and landings
- Advisor comments
- SSC recommendations
- MC recommendations

■ Council/Board Objectives:

- Recommend revised 2023 ACLs, ACTs, com quota, and RHL.
- Recommend changes to commercial management measures if warranted (not recommended).
- Consider recommending revisions to Feb. rec. fishery.

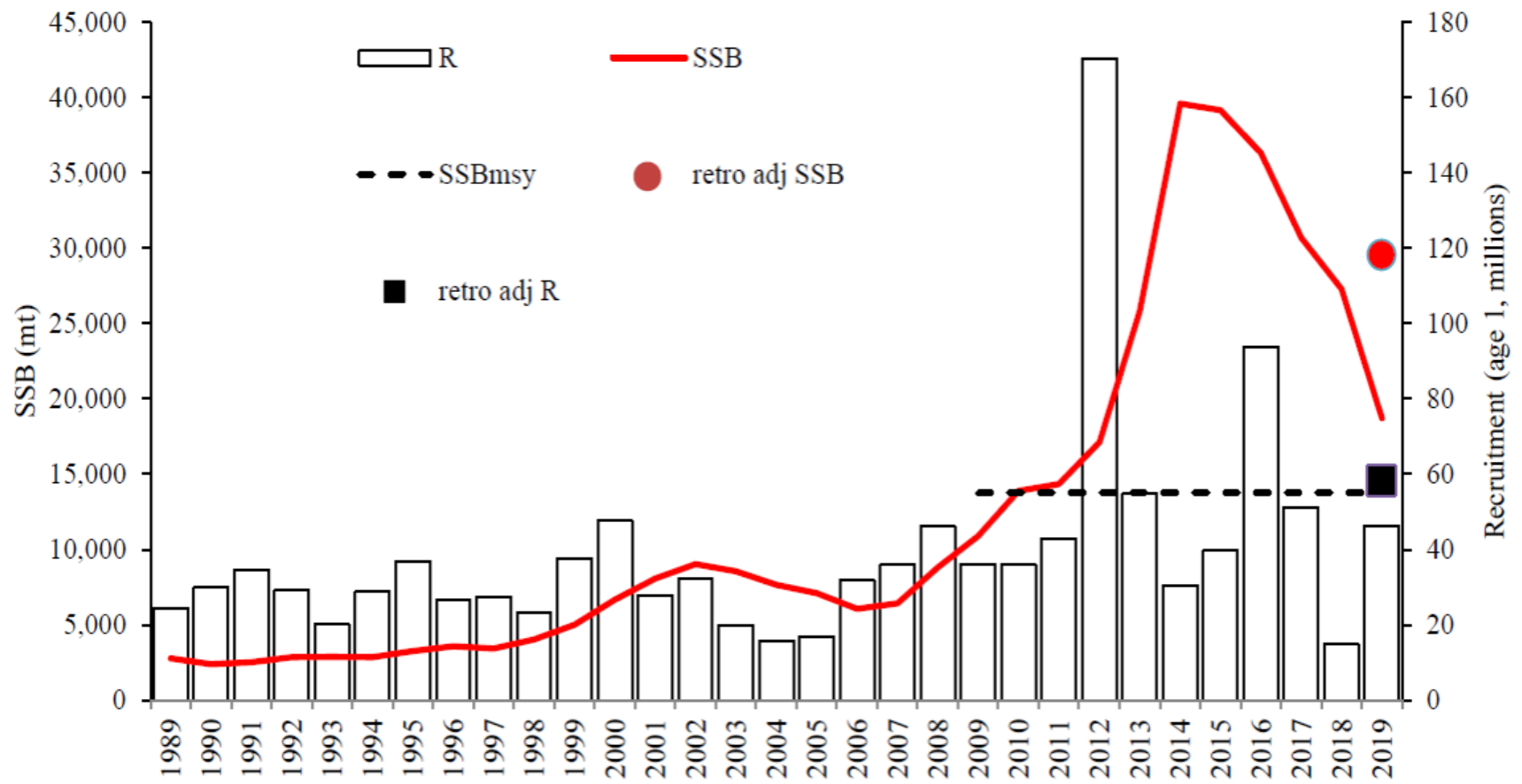
Stock Status

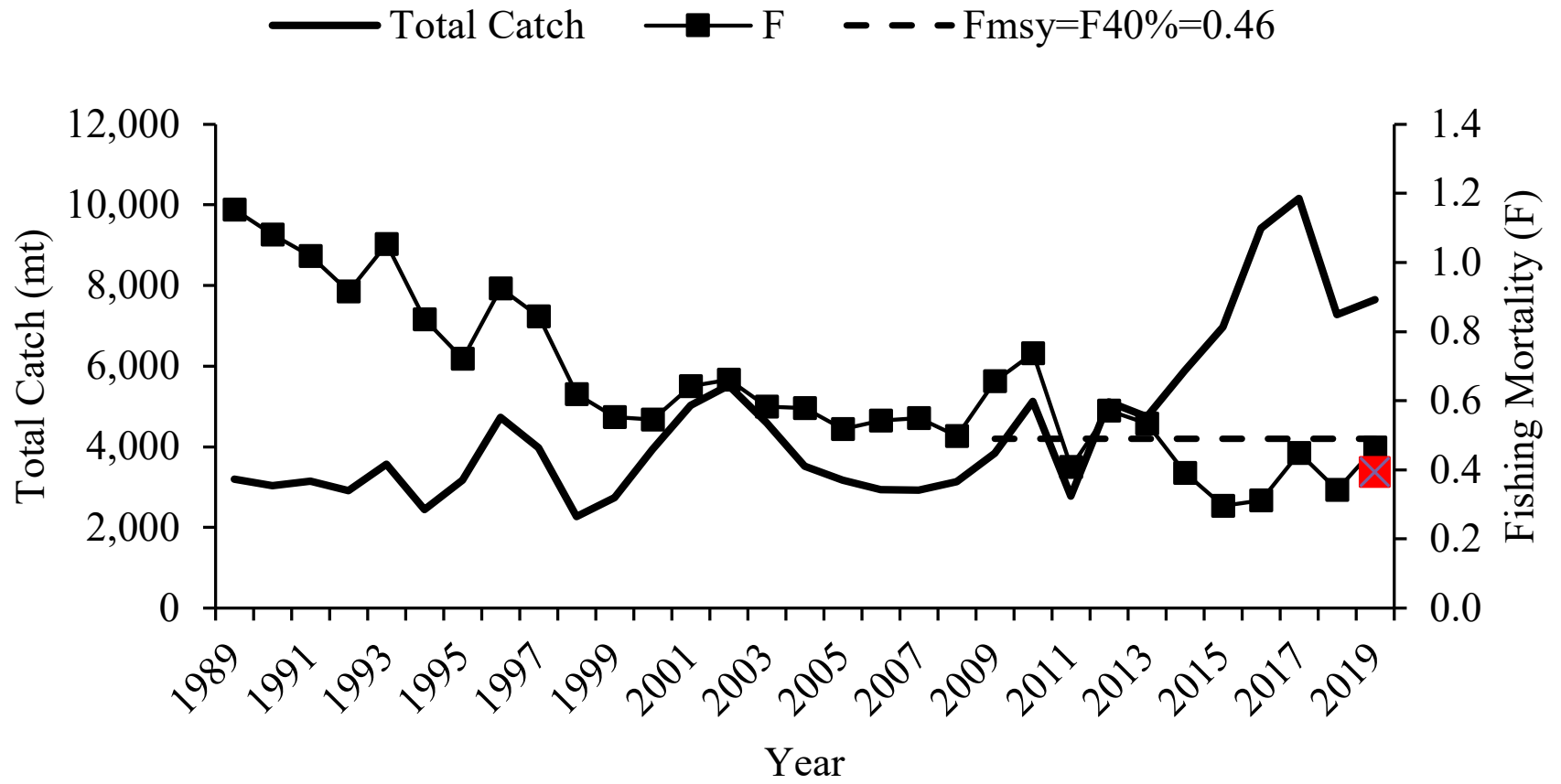


- **Not overfished in 2019**
- **Overfishing not occurring in 2019**

	SSB	F
Target	31.84 mil lb (14,441 mt)	N/A
Threshold	15.92 mil lb (7,221 mt)	0.46
Terminal year estimate (2019)	65.53 mil lb (29,769 mt) 2.1 times target level	0.39 15% below threshold level

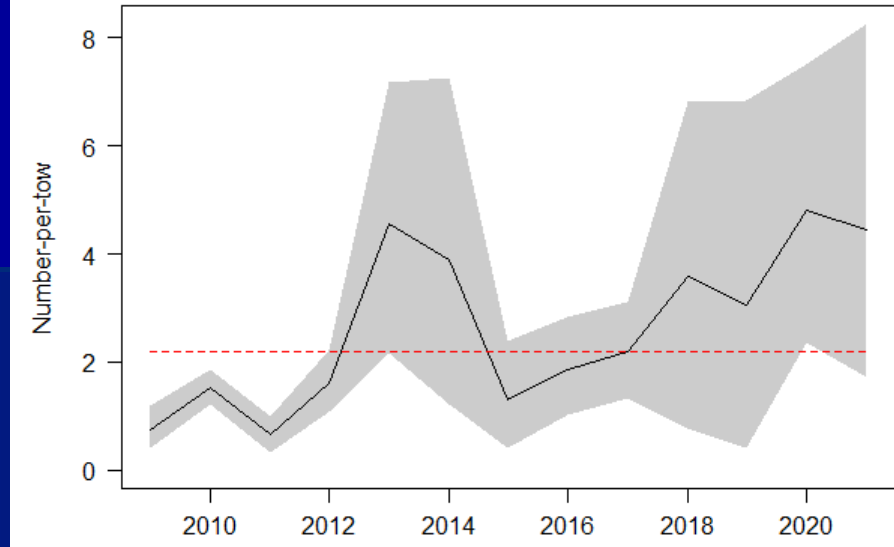
Terminal year estimates are adjusted for retrospective pattern in stock assessment.



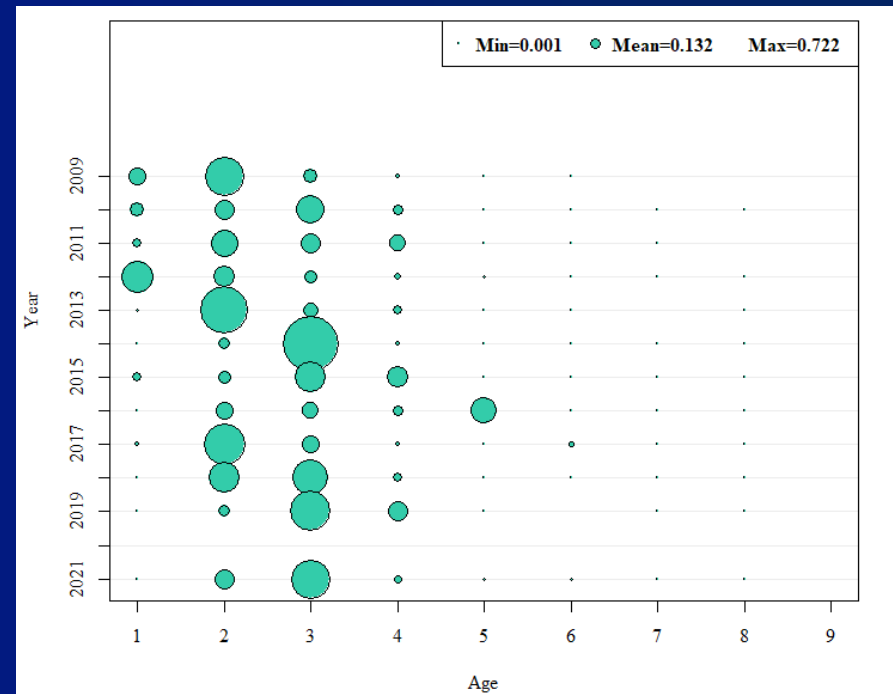


2022 Data Update

- NEFSC spring bottom trawl survey relative abundance has steadily increased since 2015.
 - 2020 index based on an incomplete survey.
- Aggregate index and/or age comps show above average 2011, 2015, 2016, and 2019 year classes.



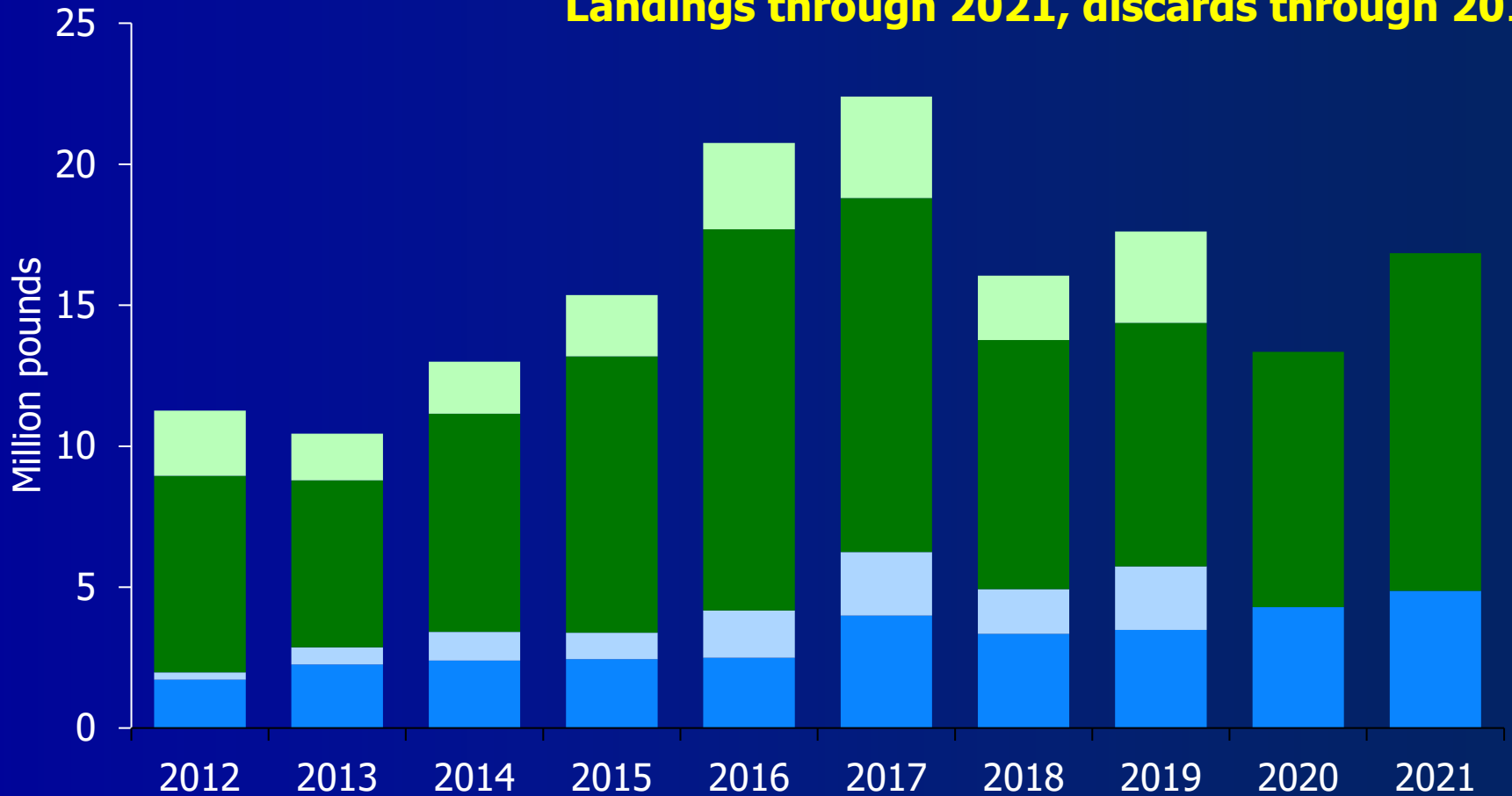
Stratified mean #/tow w/90% CI for 2009-2021, spring only.



Proportion at age, NEFSC spring survey, 2009-2021.

Recent Fishery Landings & Discards

Landings through 2021, discards through 2019



Recreational dead discards

Recreational landings

Commercial dead discards

Commercial landings

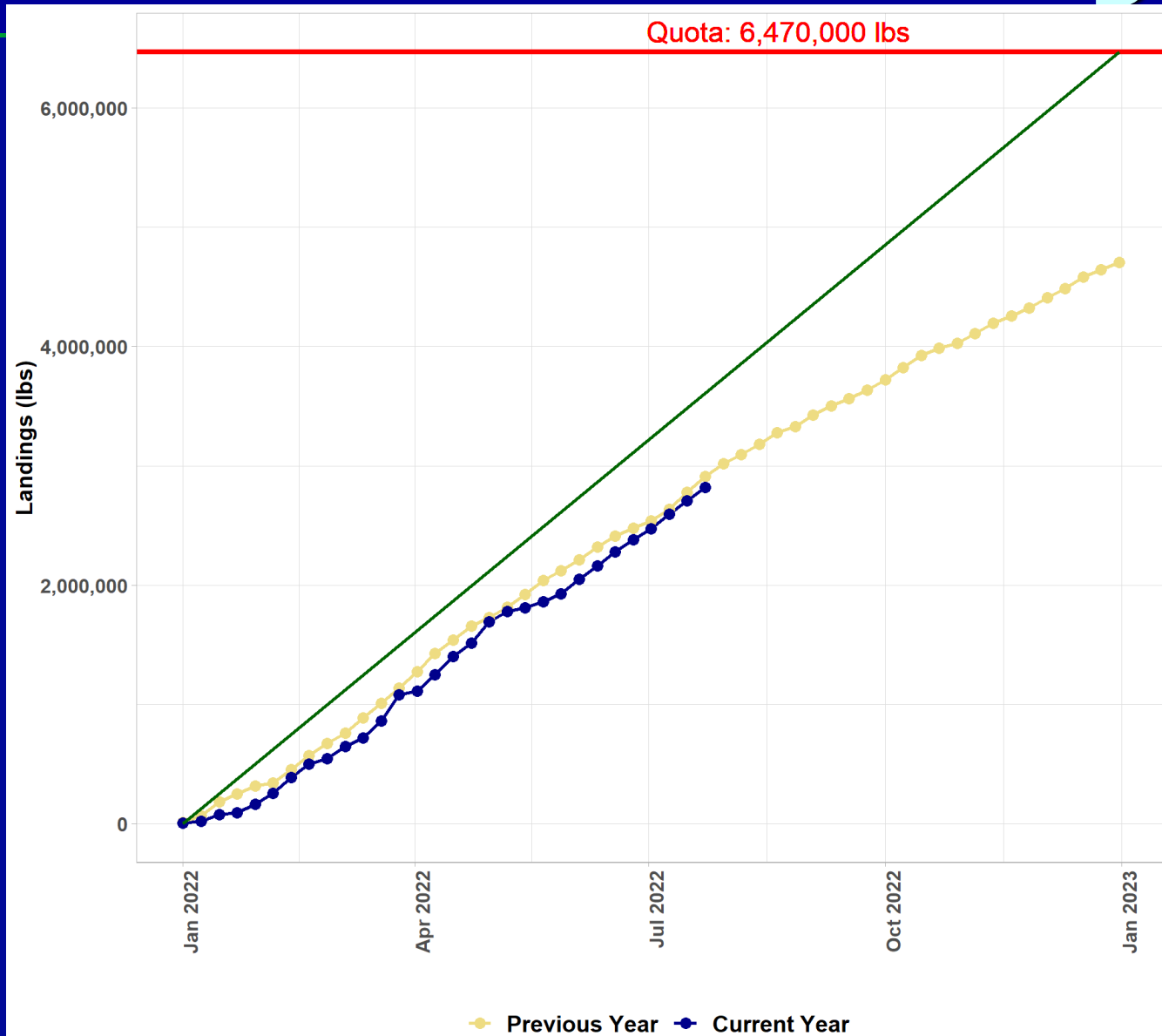
Recreational Fishery

Year	Rec. land. old MRIP	Rec. land. new MRIP	RHL	RHL overage/ underage	Rec. dead catch old MRIP	Rec. dead catch new MRIP	ACL	ACL overage/ underage
2016	5.19	13.52	2.82	+84%	6.40	16.59	3.52	+82%
2017	4.50	12.55	4.29	+5%	5.77	16.15	5.38	+7%
2018	3.82	8.84	3.66	+4%	4.92	11.12	4.59	+7%
2019	3.46	8.63	3.66	-5%	3.96	11.87	4.59	-14%
2020	NA	9.06	5.81	+56%	NA	TBD	8.09	TBD
2021	NA	11.98	6.34	+89%	NA	TBD	7.93	TBD

Commercial Fishery

Year	Com. landings	Com. quota	Quota overage/ underage	Com. dead catch	ACL	ACL overage/ underage
2016	2.50	2.71	-8%	4.17	3.15	+32%
2017	3.99	4.12	-3%	6.25	5.09	+23%
2018	3.34	3.52	-5%	4.93	4.35	+13%
2019	3.48	3.52	-1%	5.74	4.35	+32%
2020	4.29	5.58	-23%	TBD	6.98	TBD
2021	4.87	6.09	-20%	TBD	9.52	TBD

2022 Commercial Landings



AP Fishery Performance Report

- Price in NY has not fully recovered from COVID, likely due to important role of restaurants.
- Recommendation for 7,500 lb federal waters trip limit to prevent large ITQ trips from negatively impacting price for all vessels.

AP Fishery Performance Report

- Availability to rec. anglers remains very high.
- Reduced rec. effort, but those who are fishing are doing very well with black sea bass.
- Management will always struggle to constrain the rec. fishery when availability is so high. May see overages even with reduced effort this year.
- Fishery should be less restricted when biomass is high.

AP Fishery Performance Report

- Reducing future harvest in response to past overages is counterproductive for abundant stocks. Will make them even more abundant.
- Min. size limits increase harvest of male BSB, which should not be overly detrimental to the stock.
- With current high costs, for-hire vessels may not be able to stay in business with bag limits of 8 or lower and with reduced availability of summer flounder.
- Observation of a large (8-10 lb) female BSB. Can they transition from female to male and back to female?

Additional AP Email Comments

- Recreational restrictions in 2022 a “travesty.”
- Concern about discard mortality with increased min. size implemented for 2022.
- Rec. fishermen have noted times when BSB are present, but won't bite hooks. Not sure why.
- Research recommendation: When, where, and age of spawning. Lockjaw related to spawning? Will distribution shift away from DE in future?

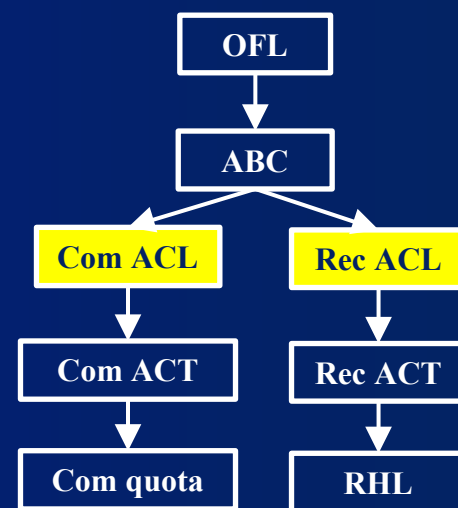
SSC Recommendation

- No changes to previously recommended 2023 of 16.66 million pounds.
- 12% decrease from 2022 ABC due to declining biomass.

Year	OFL		ABC	
	MT	Mil. lb	MT	Mil. lb
2022	8,735	19.56	8,555	18.86
2023	7,716	17.01	7,557	16.66

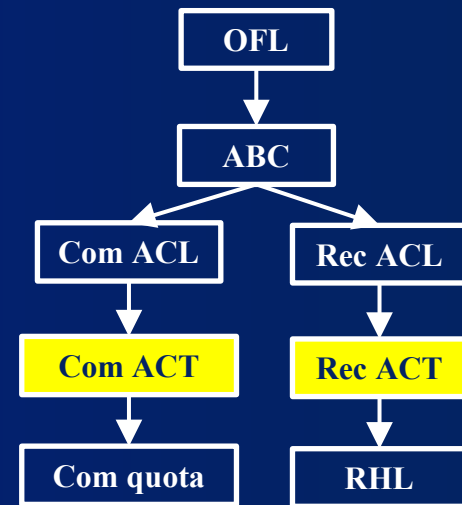
Annual Catch Limits

- Defined by com/rec allocation.
- 2023 ABC = 16.66 mil lb.
- 45% = 7.50 mil lb commercial ACL.
- 55% = 9.16 mil lb recreational ACL.



Annual Catch Targets (ACTs)

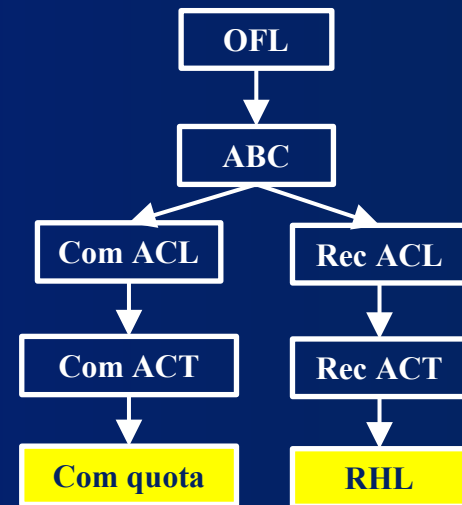
- MC recommendation: ACLs = ACTs; no management uncertainty buffers.
- **Commercial fishery**
 - Landings have not exceeded quota since 2015.
 - ACL overages in recent years due to discards. Discards projection method modified starting with 2021 specs to address this issue.



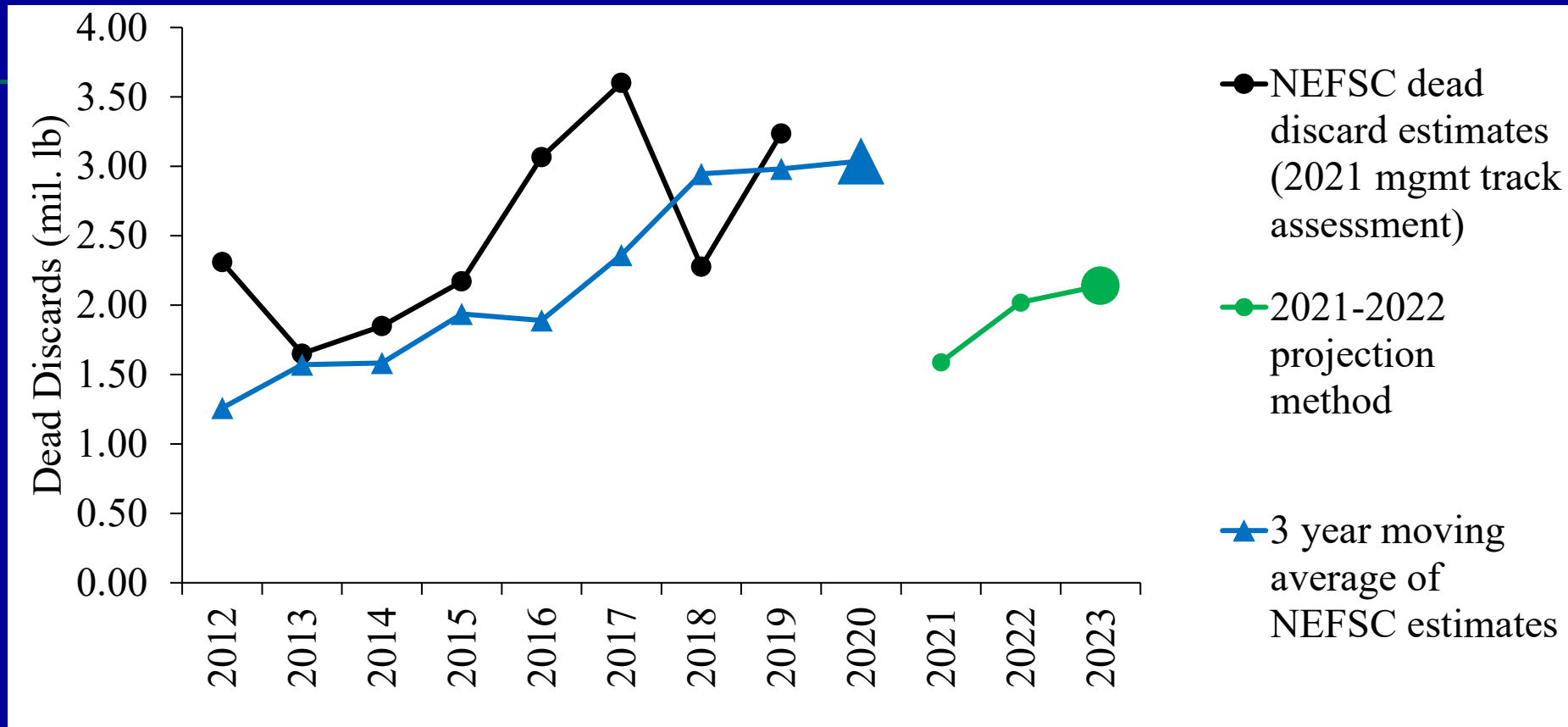
- **Recreational fishery**
 - Notable RHL overages when measures not set based on stock assessment (pre 2017) and under status quo approach for 2020-2021.
 - Measures restricted in 2022, aiming to prevent 2022 RHL overage.
 - Change in measures for 2023 under Percent Change Approach won't be known until late 2022.

Com. Quota and RHL

- ACTs minus projected dead discards.
- Unlike SF and scup, BSB assessment does not project com vs rec or discards vs landings.
- Method for 2021-2022 specs:
 - Aimed to address past under-prediction of black sea bass dead discards.
 - Dead discards as proportion of total dead catch in each sector = most recent 3 year average.
- MC recommend continued use of 2021-2022 method for commercial discards.



Projected Recreational Discards



▲ Simple 3-year average: supported by 7 MC members.

● 2021-2022 method: supported by 5 MC members.

- 2 MC members not opposed to averaging the two approaches; however, most MC members preferred one of the two approaches rather than an average.

Projected Recreational Discards

Simple 3-yr avg - 3.04 mil lb – 7 MC members

- In line with available time series of disc. estimates.
- Does not require assumption that catch = ACL.
 - Concern that catch = ACL assumption could under-predict discards, increasing likelihood of ACL overages and therefore of triggering AMs.
- Target harvest level for 2023 under Percent Change Approach unknown.
- Back of the envelope estimate of 2020 discards based on discards in numbers of fish and avg weight of discarded fish = ~3 mil lb.

Projected Recreational Discards

2021-2022 method - 2.14 mil lb – 5 MC members

- Consistency with prior years, with commercial sector, and with summer flounder and scup.
- By this time next year, will have 3 additional years of data to evaluate performance of this method.
- May be reasonable to assume lower discards than 2015-2019 given noteworthy increases in RHL in 2020/2021.
- Lower discard estimate can reduce potential for negative feedback loop (high discards projection reduces RHL, can result in more restrictive measures and more discards)

Measure	Previously approved for 2023	Basis	Revisions	Basis
OFL	17.01	SSC recommendation	17.01	Same as previously approved.
ABC	16.66	SSC recommendation	16.66	Same as previously approved.
Com. ACL	8.93	49% of ABC landings portion (com. allocation) + proj. com. disc.	7.50	<i>45% of ABC (com allocation)</i>
Com. ACT	8.93	= ACL; no deduction for management uncertainty	7.50	Same as previously approved.
Projected com. dead disc	3.21	Com. dead disc. = 36% of com. catch (2017-2019 avg.)	2.70	Same basis as previously approved but accounting for allocation change.
Com. quota	5.71	Com. ACT minus proj. com. dead discards	4.80	Same as previously approved.
Rec. ACL	7.74	51% of ABC landings portion (rec. allocation) + proj. rec. disc.	9.16	<i>55% of ABC (rec allocation)</i>
Rec. ACT	7.74	= ACL; no deduction for management uncertainty	9.16	Same as previously approved.
Projected rec. dead discards	1.79	Rec. dead disc. = 23% of rec. catch (2017-2019 avg)	3.04	<i>3-year avg. of most recent discard estimates available (2017-2019)</i>
RHL	5.95	Rec. ACT minus proj. rec. dead discards	6.12	Same as previously approved.

Commercial Measures

- No possession limit (state-specific limits)
- Min. trawl mesh size of 4.5" diamond if retaining more than
 - 500 lb, Jan – Mar
 - 100 lb, Apr – Dec
- Pots/traps
 - 2 escape vents, degradable hinges
 - 1.375" x 5.75" rectangular, 2" x 2" square, 2.5" circular
- Min. size: 11" total length
- MC recommended no changes for 2023.

February Recreational Fishery

- MC recommends modifying the process such that *vessels landing black sea bass in a state with an approved Wave 1 recreational fishery are subject to the state regulations during that Wave 1 fishery.*
- Under current process, states must match federal measures during February.
- Changes needed to address implications of process used to waive federal measures.

VA Feb. fishery requirements

- MC has been very supportive of VA Feb. fishery.
- If other states participate in future, MC recommends using process similar to VA.
- Captain or operator of each vessel must have a February Recreational Black Sea Bass Permit.
- Must hail to VMRC Marine Police Operations station prior to or just after the start of each fishing trip.
- Permittees must report for each trip:
 - Number of passengers
 - Private or for-hire trip
 - Number of BSB kept
 - Number of BSB released
 - No Activity reports required if no BSB trips taken
- Estimated harvest used to adjust measures later in year.

Process for Waiving Fed. Waters Rec. Measures

- Annual decision between coastwide measures and waiving fed measures in favor of state measures.
- Waiving of fed. measures does not roll over.
- Non-preferred coastwide measures in place from Jan 1 until they are waived (usually in spring).
- Non-preferred coastwide measures are a one-size-fits-all approach and are therefore more restrictive than measures in some states/regions.
- A barrier to continued participation in Feb. fishery by VA because non-preferred coastwide measures are more restrictive than VA measures.

February Fishery

- MC recommendation: *vessels landing black sea bass in a state with an approved Wave 1 recreational fishery are subject to the state regulations during that Wave 1 fishery.*

Decision Points

- 2023 ACLs, ACTs, com. quota, RHL.
 - Changes needed due to revised com/rec allocations.
 - 7 MC members recommended change to rec. discard projection method.
- Commercial possession limits, gear requirements, min. fish size.
 - MC recommends no changes.
- February recreational fishery.
 - MC recommends modifying to indicate that states with approved Wave 1 rec. fisheries do not need to match fed. Measures during wave 1.

Questions/Discussion



Measure	Previously approved for 2023	Basis	Revisions	Basis
OFL	17.01	SSC recommendation	17.01	Same as previously approved.
ABC	16.66	SSC recommendation	16.66	Same as previously approved.
Com. ACL	8.93	49% of ABC landings portion (com. allocation) + proj. com. disc.	7.50	<i>45% of ABC (com allocation)</i>
Com. ACT	8.93	= ACL; no deduction for management uncertainty	7.50	Same as previously approved.
Projected com. dead disc	3.21	Com. dead disc. = 36% of com. catch (2017-2019 avg.)	2.70	Same basis as previously approved but accounting for allocation change.
Com. quota	5.71	Com. ACT minus proj. com. dead discards	4.80	Same as previously approved.
Rec. ACL	7.74	51% of ABC landings portion (rec. allocation) + proj. rec. disc.	9.16	<i>55% of ABC (rec allocation)</i>
Rec. ACT	7.74	= ACL; no deduction for management uncertainty	9.16	Same as previously approved.
Projected rec. dead discards	1.79	Rec. dead disc. = 23% of rec. catch (2017-2019 avg)	2.14	Same as previously approved.
RHL	5.95	Rec. ACT minus proj. rec. dead discards	7.02	Same as previously approved.

Rec. Harvest Control Rule Percent Change Approach

①



RHL compared to
harvest estimate

Determine if
upcoming 2-year
average RHL is
**above, below, or
within** a confidence
interval around an
estimate of harvest
under status quo
measures.



②



Compare biomass
to target level

Three categories:
• **Very high:** Greater
than 150% of
target level
• **High:** At least the
target level, but no
higher than 150%
of target level
• **Low:** Below target
level



③



Determine percent
change in harvest

Steps 1 and 2
determine the
appropriate percent
change in harvest
needed (if any).



④

Set management
measures

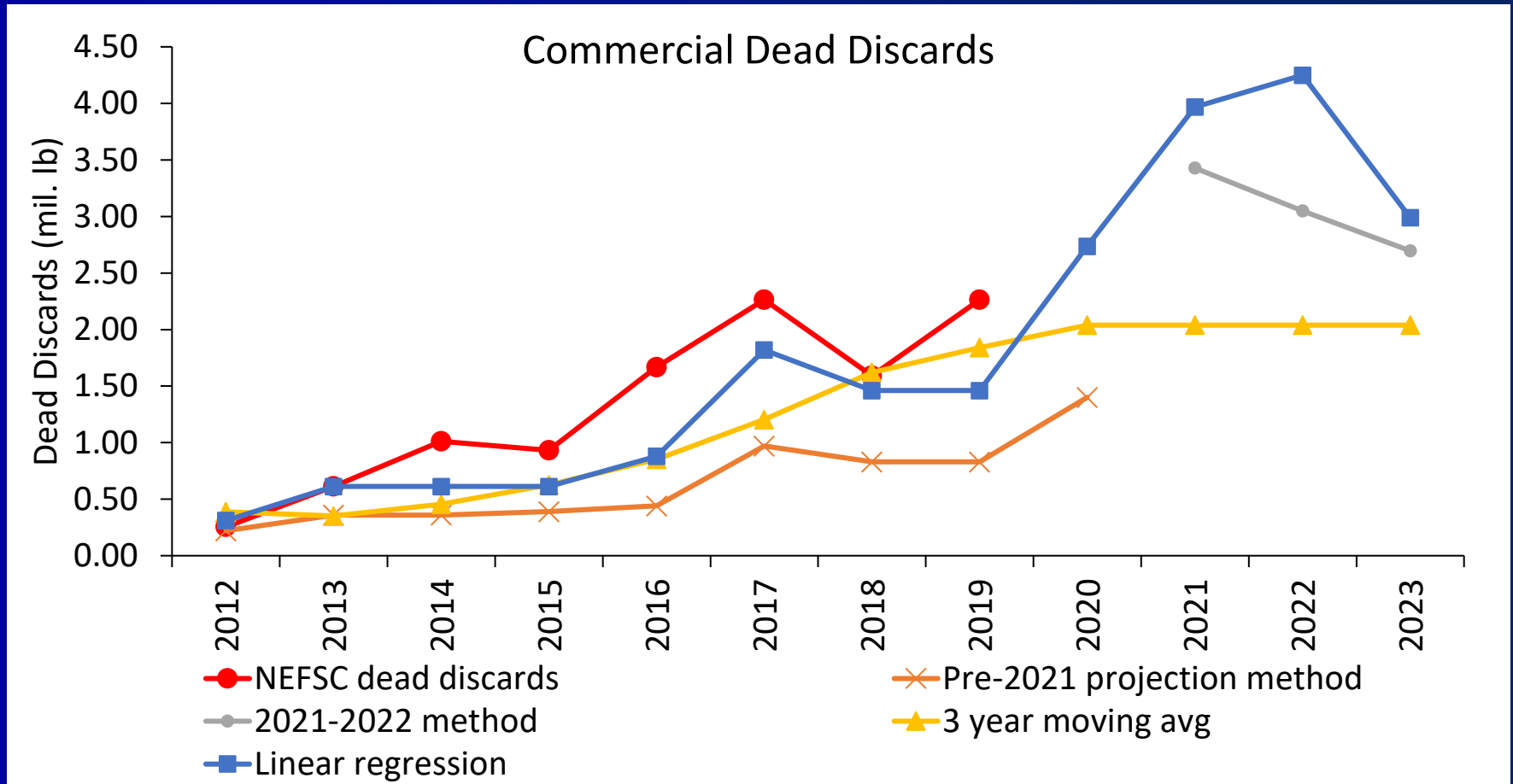
Management
measures modified
as needed to
achieve the percent
change determined
through step 3.

Measures are set for
2 years at a time.



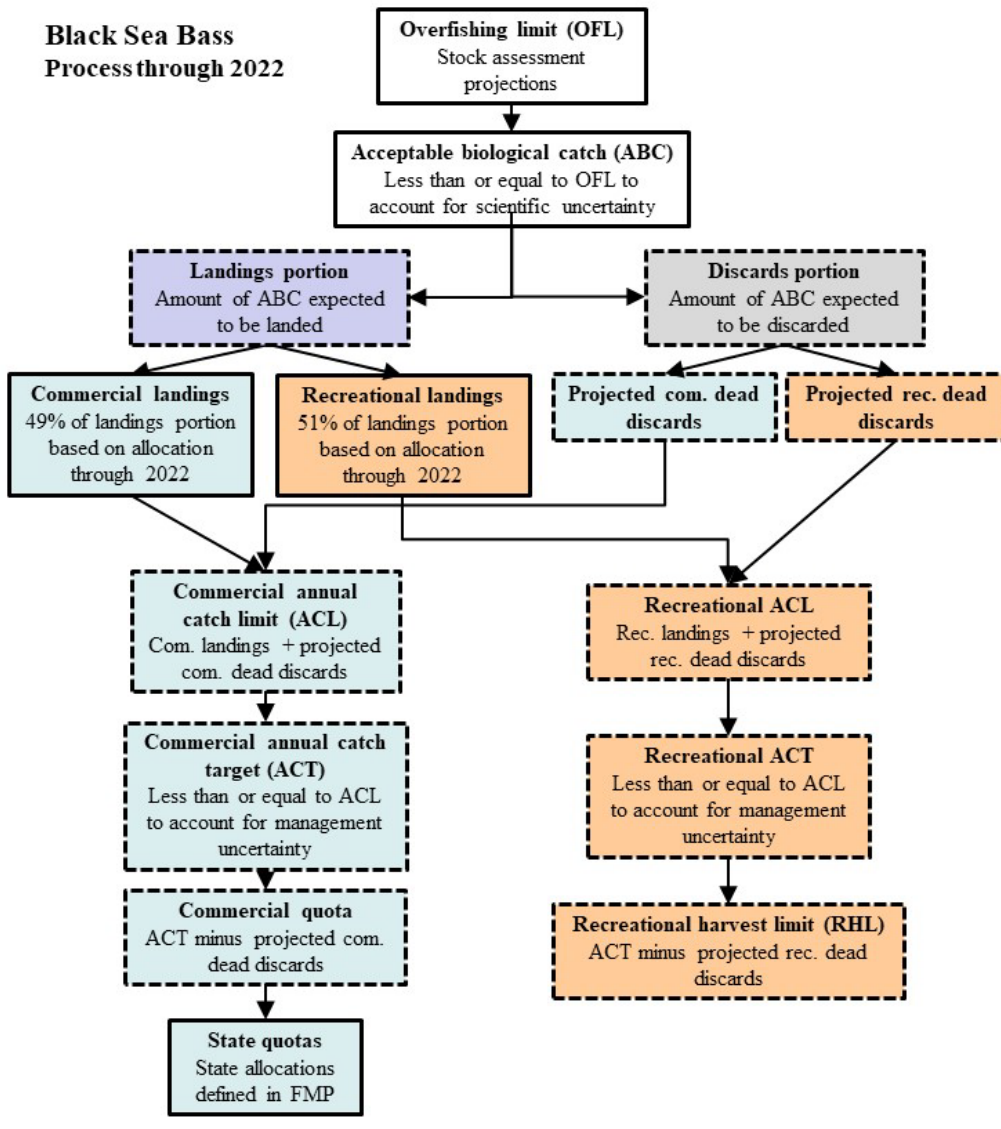
Future RHL vs Harvest Estimate	Biomass vs. target level	Change in Harvest
Future 2-year avg RHL greater than upper bound of harvest estimate CI (harvest expected to be lower than RHL)	Very high (above 150% of target)	Liberalization % equal to difference between harvest estimate and 2-year average RHL, <u>not to exceed 40%</u>
	High (at least target but no higher than 150% of target)	Liberalization % equal to difference between harvest estimate and 2-year average RHL, <u>not to exceed 20%</u>
	Low (below target)	Liberalization: 10%
Future 2-year avg RHL within harvest estimate CI (harvest expected to be close to RHL)	Very high (above 150% of target)	Liberalization: 10%
	High (at least target but no higher than 150% of target)	No change: 0%
	Low (below target)	Reduction: 10%
Future 2-year avg RHL less than lower bound of harvest estimate CI (harvest expected to exceed RHL)	Very high (above 150% of target)	Reduction: 10%
	High (at least target but no higher than 150% of target)	Reduction % equal to difference between harvest estimate and 2-year average RHL, <u>not to exceed 20%</u>
	Low (below target)	Reduction % equal to difference between harvest estimate and 2-year average RHL, <u>not to exceed 40%</u>

Projected Discards

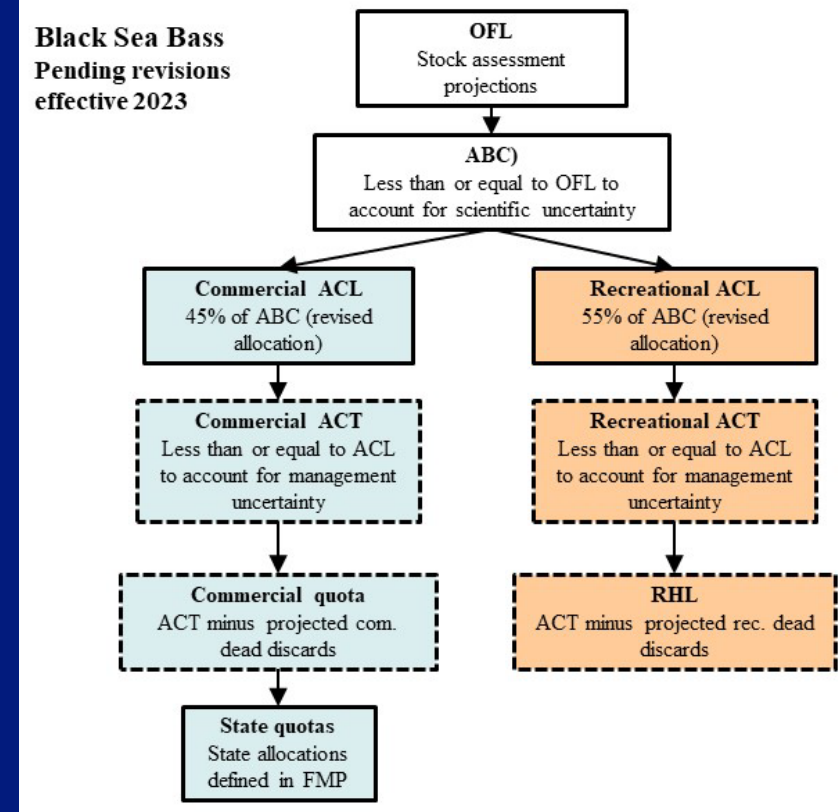


3 year avg based on data through 2019 (2021-2023 set equal to 2020)

**Black Sea Bass
Process through 2022**



**Black Sea Bass
Pending revisions
effective 2023**



1. **Overfished, rebuilding plan, or stock status unknown:**
Exact overage amount deducted in following year, or as soon as possible. **Payback can be spread across 2 years.**
2. **Between target and threshold and not under a rebuilding plan:**
 - a. If only rec. ACL exceeded, bag/size/season adjusted for following year, or as soon as possible. Take into account performance of measures and conditions that precipitated the overage.
 - b. **If F_{MSY} (or ABC when updated F/F_{MSY} not available) also exceeded in addition to rec. ACL, deduction required, scaled based on biomass. Payback amount = $(\textit{overage amount}) * (B_{MSY} - B) / \frac{1}{2} B_{MSY}$.** **Payback can be spread across 2 years.**
3. **Biomass above the target:** bag/size/season adjusted for following year, or as soon as possible. Take into account performance of measures and conditions that precipitated overage.

Yellow= changes under HCR FW/Addenda compared to current AMs.

VA Feb. fishery

Number of	2018	2019	2020	2021
Permits	414	254	372	534
Reported Trips	54	79	155	146
Trips Sampled by VMRC	9	17	21	9
Black Sea Bass Landed	2,560	4,372	7,226	6,985
Black Sea Bass Released*	433	1,817	3,204	2,741
Estimated Landings (Pounds)	6,090	10,187	13,845	15,709