

Black Sea Bass



Advisory Panel Webinar

February 6, 2017

Outline

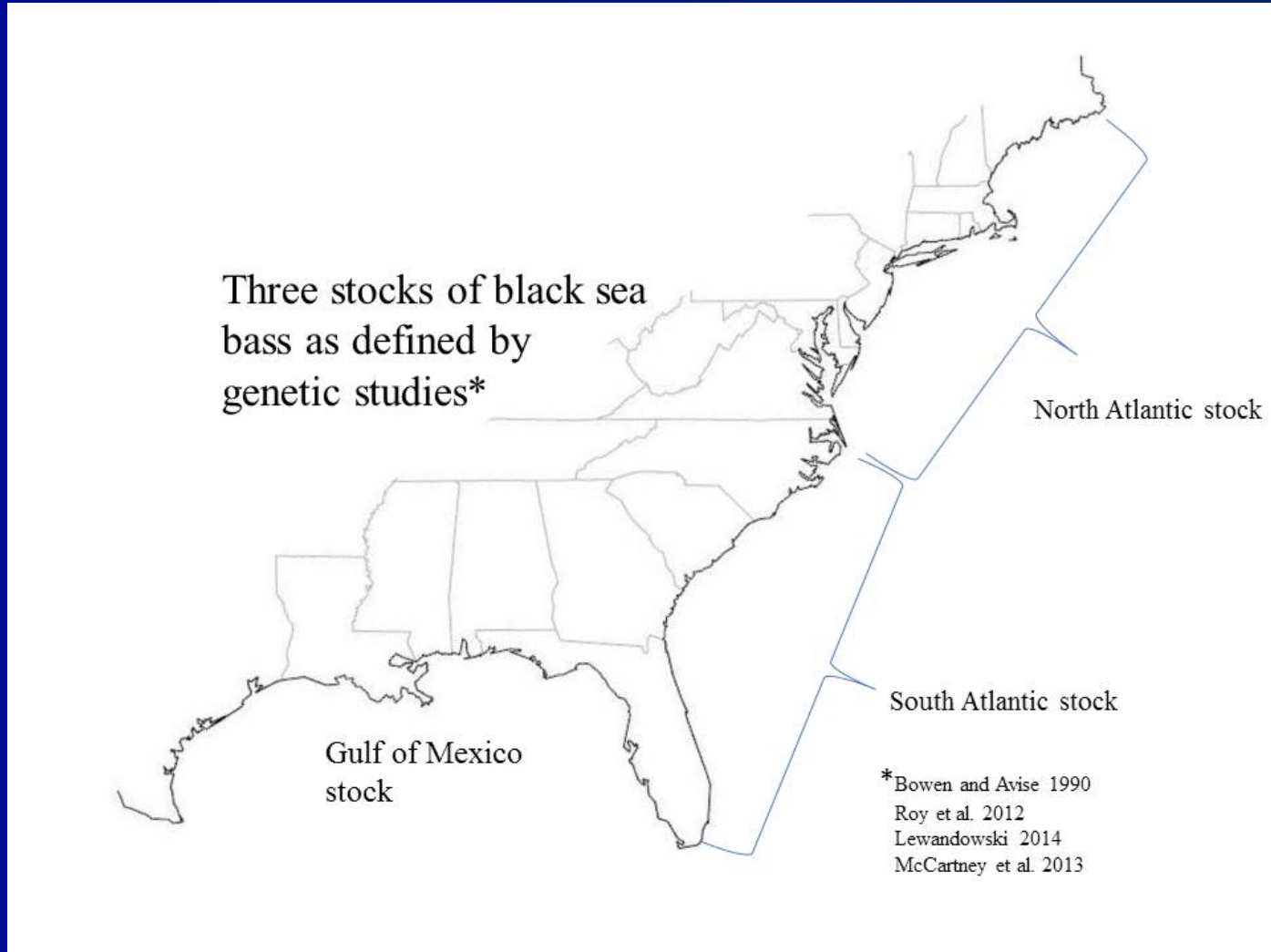


1. Overview of 2016 Benchmark Assessment
 - a) Assessment Considerations and Structure
 - b) Stock Status and Reference Points
2. 2017 – 2019 Specifications
 - a) Recent Fishery Performance
 - b) Regulatory Review
 - c) Staff Recommendation
 - d) SSC Recommendation
 - e) Monitoring Committee Recommendation
3. 2017 Recreational Measures
 - a) Fishery Review
 - b) Monitoring Committee Recommendation

2016 Benchmark Assessment Overview

- Highlights/Differences in 2016 Assessment
 - Spatial structure and stock mixing
 - Habitat preferences and survey data
 - Accounting for unique life history – protogynous hermaphrodite

2016 Assessment – Spatial Structure

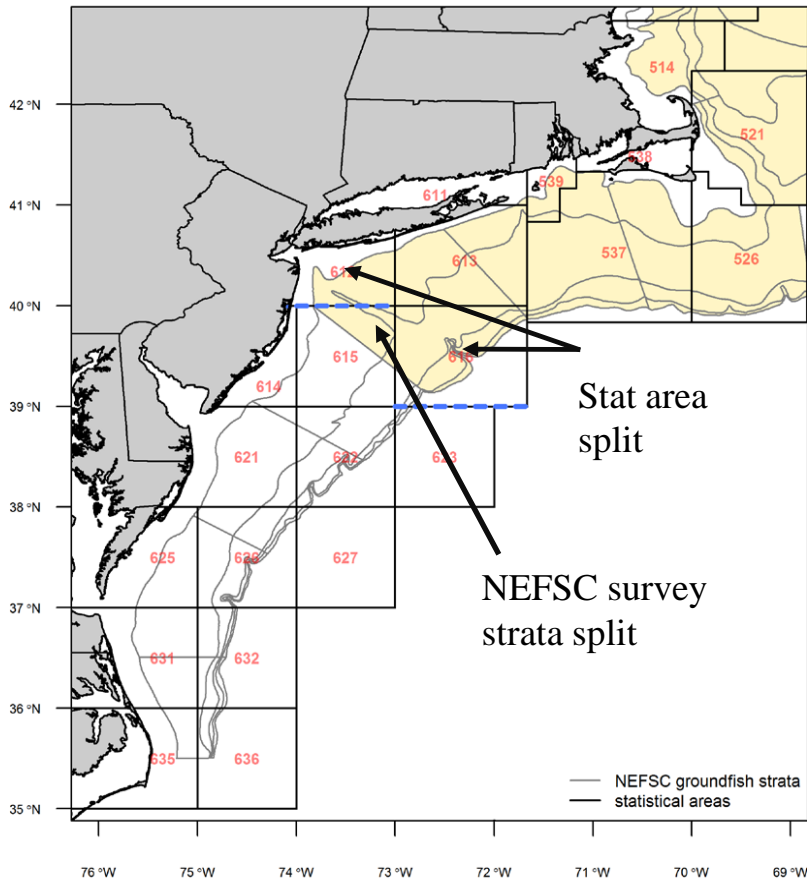


Spatial Structure & Stock Mixing



- Potential split was evaluated a following information:
 - Physical Barriers
 - Tag recoveries
 - Season patterns in commercial fishery
 - Patterns of recreational CPUE in for-hire fishery
 - Patterns among state survey indices
- Determined appropriate to split the north Atlantic stock into two sub-units

Spatial Structure & Stock Mixing



Two sub-units split approximately at Hudson Canyon

- North sub-unit – NY – MA
- South sub-unit –
 - NJ – NC (north of Hatteras)

Important note: these two sub-units do not constitute separate stocks; used for spatial model

- Reference pt's generated for single unit stock

Habitat Preferences



Greysreef.noaa.gov



HABCOM scallop project



Cbf.org



njscuba.net



- Strong affinity to reef/structure habitat
- Also utilize open bottom/featureless habitat
 - Questions about survey data from trawl surveys
- Evaluated data from trawl and trap surveys
 - Also from structure and non-structure
 - No differences in CPUE and length frequ.

Life History Evaluation



- Working group evaluated a variety of data and conducted a number of simulations
- Concluded northern Atlantic stock of black sea bass is not a typical protogynous hermaphrodite
 - Pre-maturational males
 - Large females present
 - Generally not highly skewed sex ratio
 - Secondary or sneaker males present during spawning
 - Seasonal migrations offshore
 - Less vulnerable to exploitation

Stock Status



- New accepted benchmark: SAW/SARC 62 (2016)
 - Age structured assessment program (ASAP) for two spatial sub-units (North and South of Hudson Canyon)
 - Stock not overfished and overfishing not occurring in assessment terminal year (2015)
 - SSB is estimated to be 2.3 times higher than target; 4.6 times higher than threshold
 - F is 25% below Fmsy proxy

Biological Reference Points



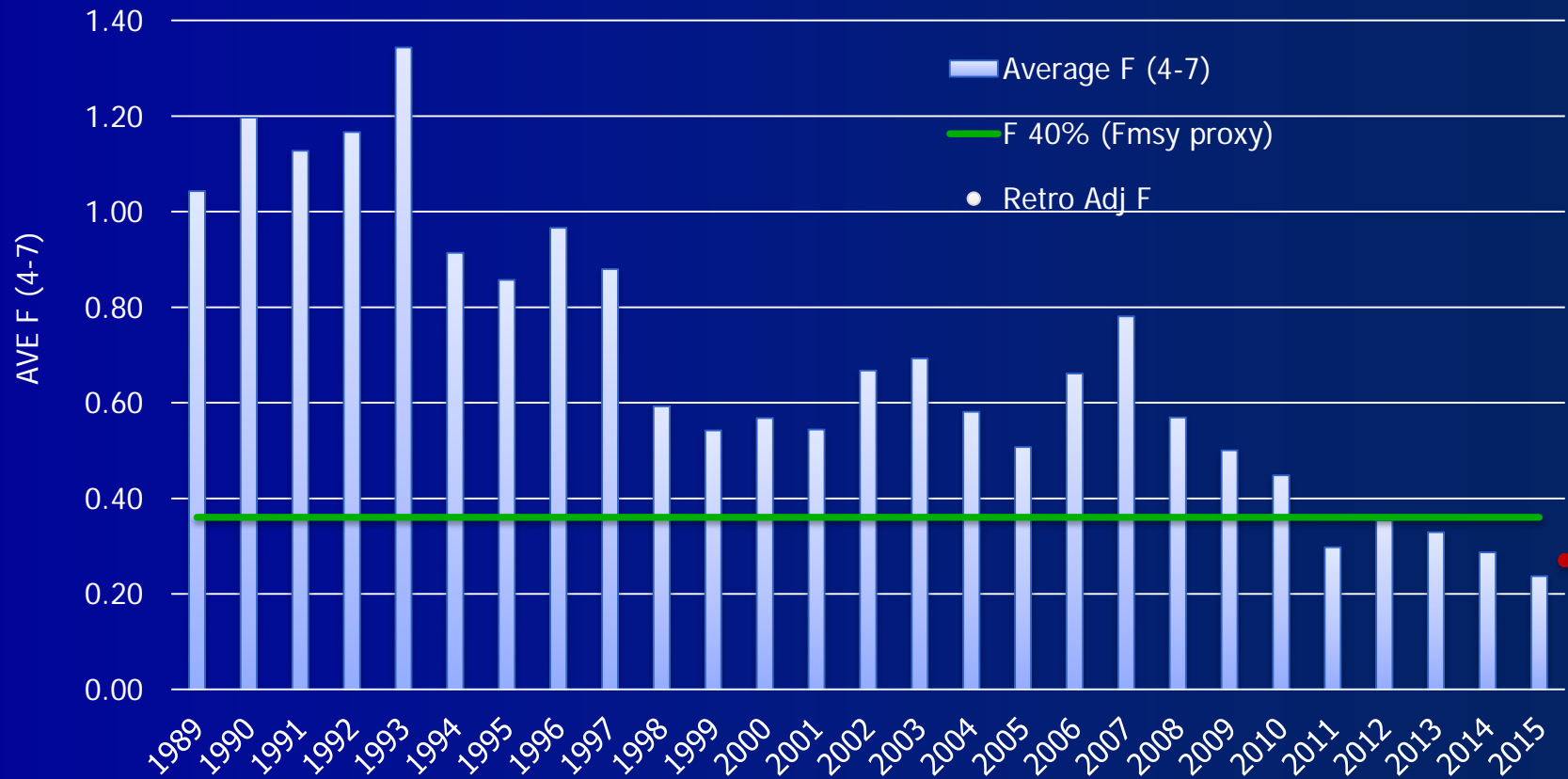
From 2016 Benchmark Assessment:

- F_{MSY} proxy = $F_{40\%}$ = 0.36
- SSB_{MSY} proxy = 21.3 mil lb (9,667 mt)
- Minimum stock size threshold ($1/2$ SSB_{MSY}) = 10.7 mil lb (4,834 mt)
- Note: SSB is both male and female mature biomass

Fishing Mortality



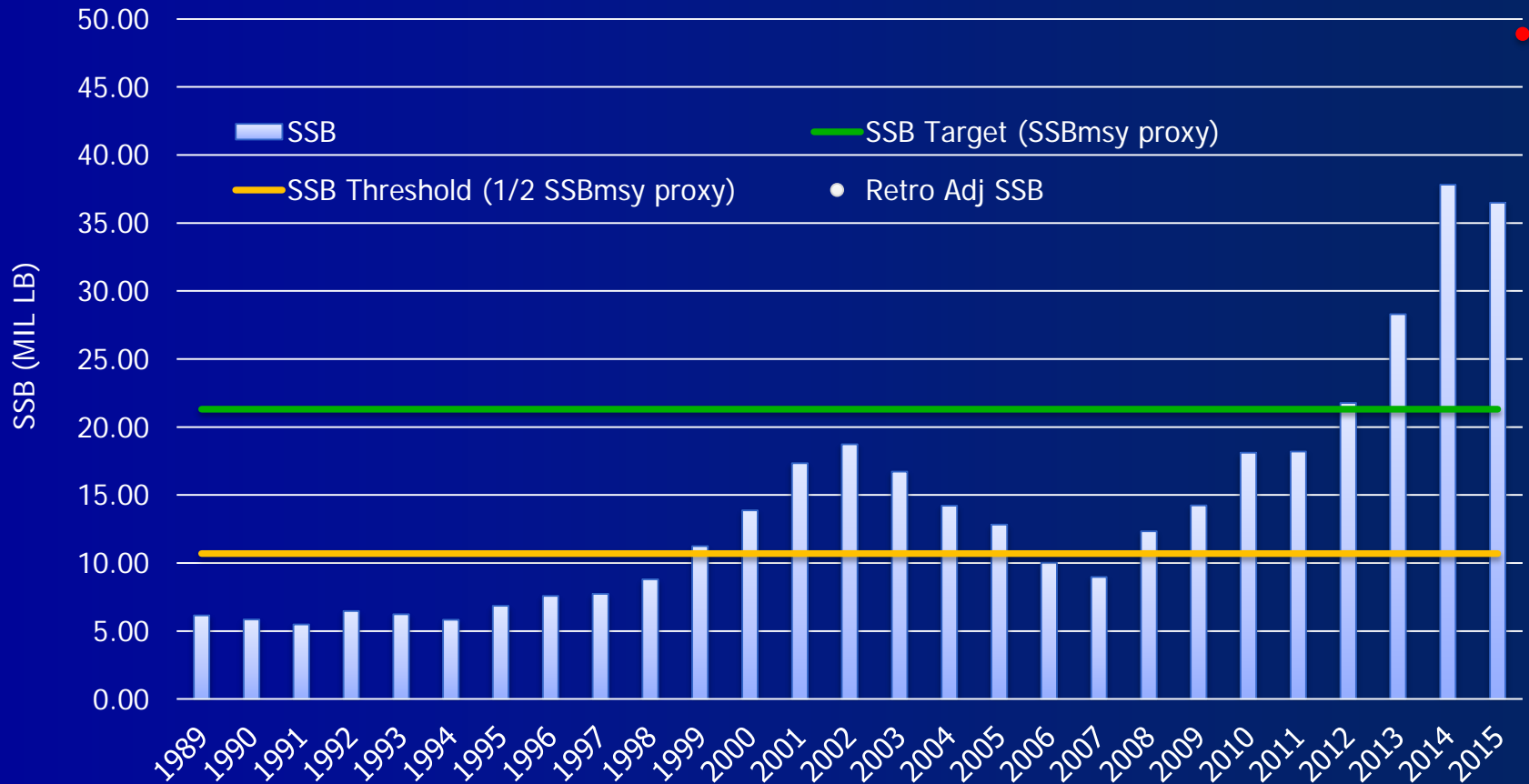
Black Sea Bass F Trends and Reference Points



Biomass



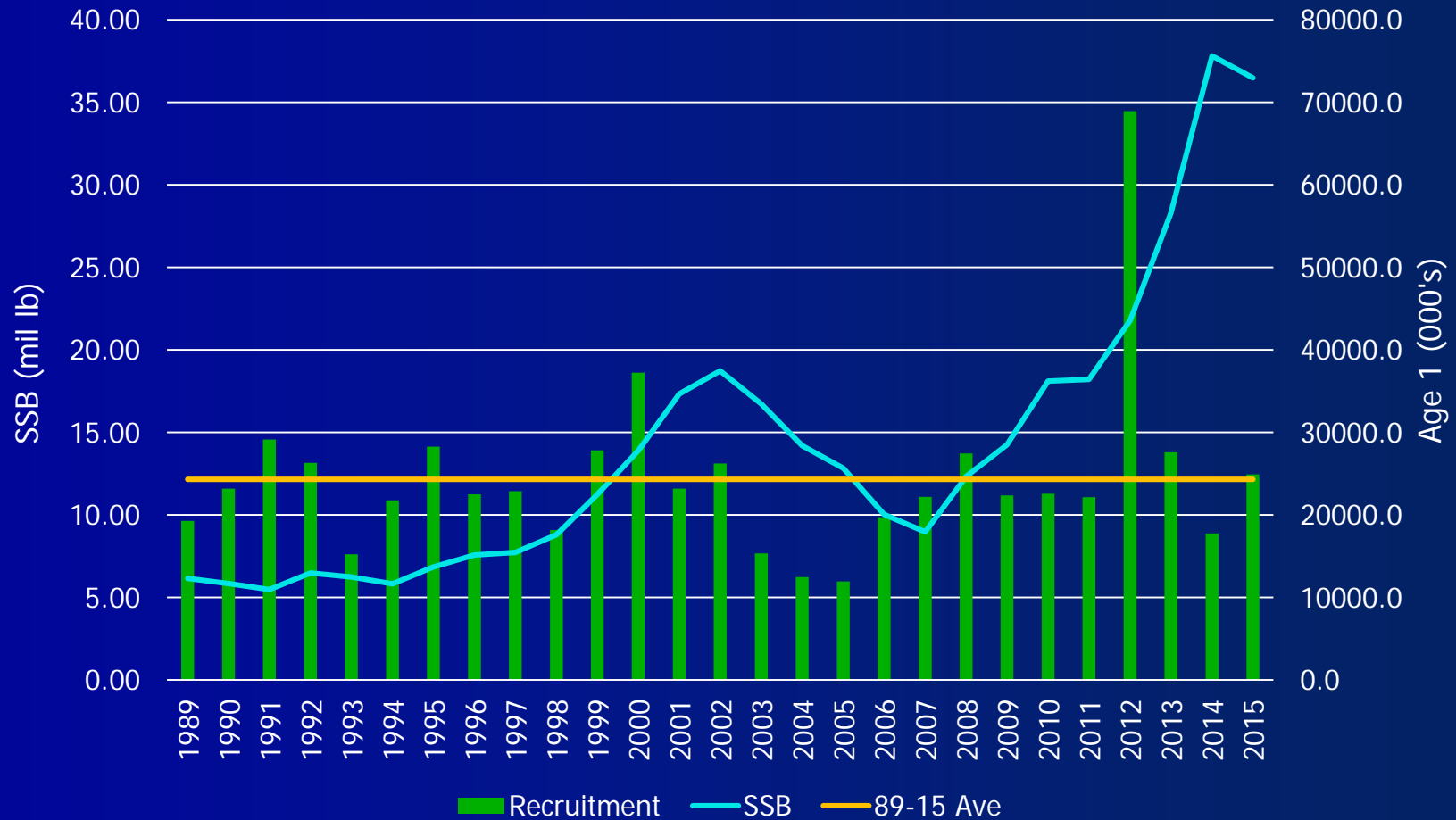
Black Sea Bass SSB Trends and Reference Points



Recruitment



Black Sea Bass SSB and Recruitment (Age 1)



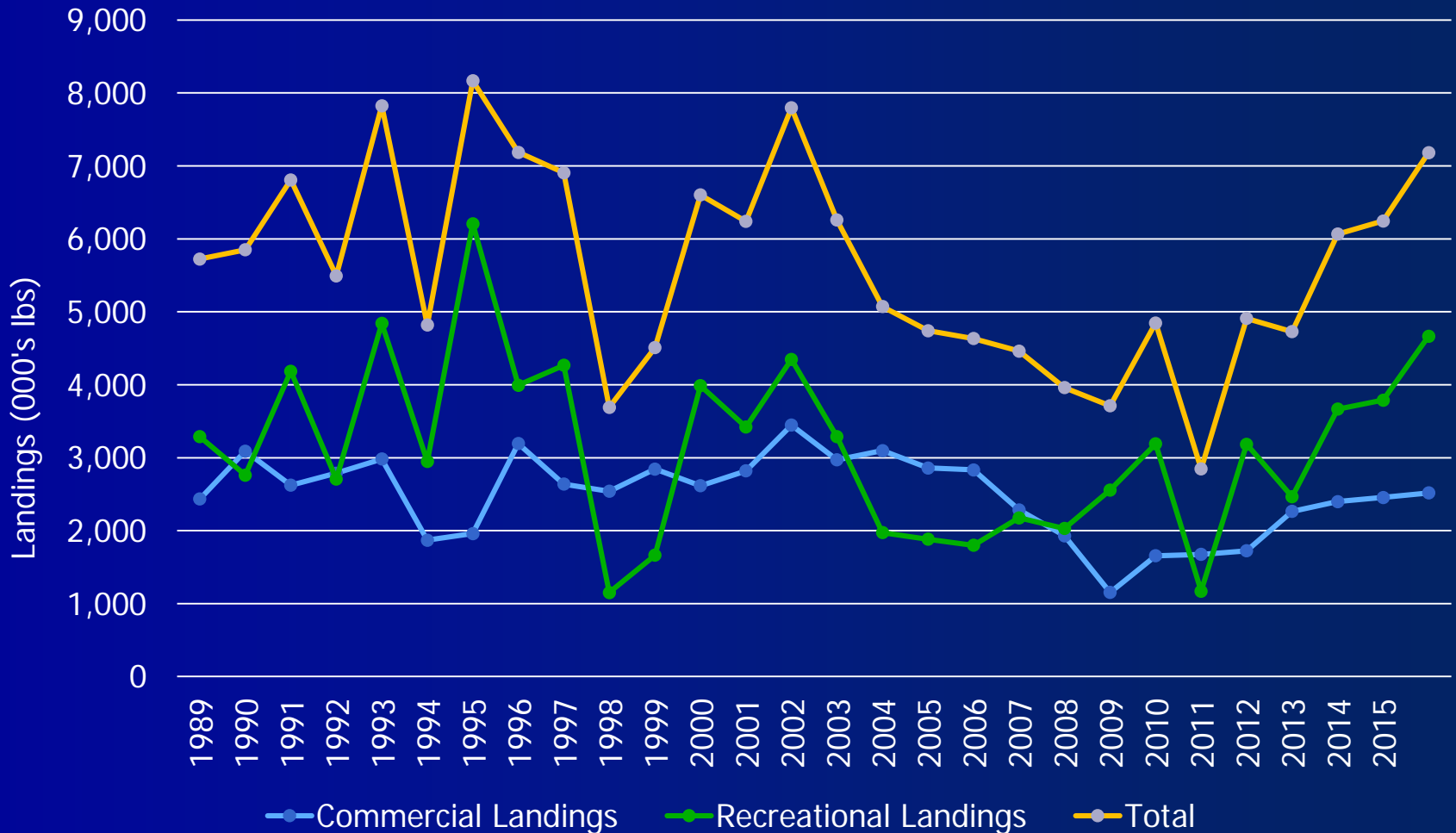


2017 – 2019 Black Sea Bass Specifications

Fishery Performance



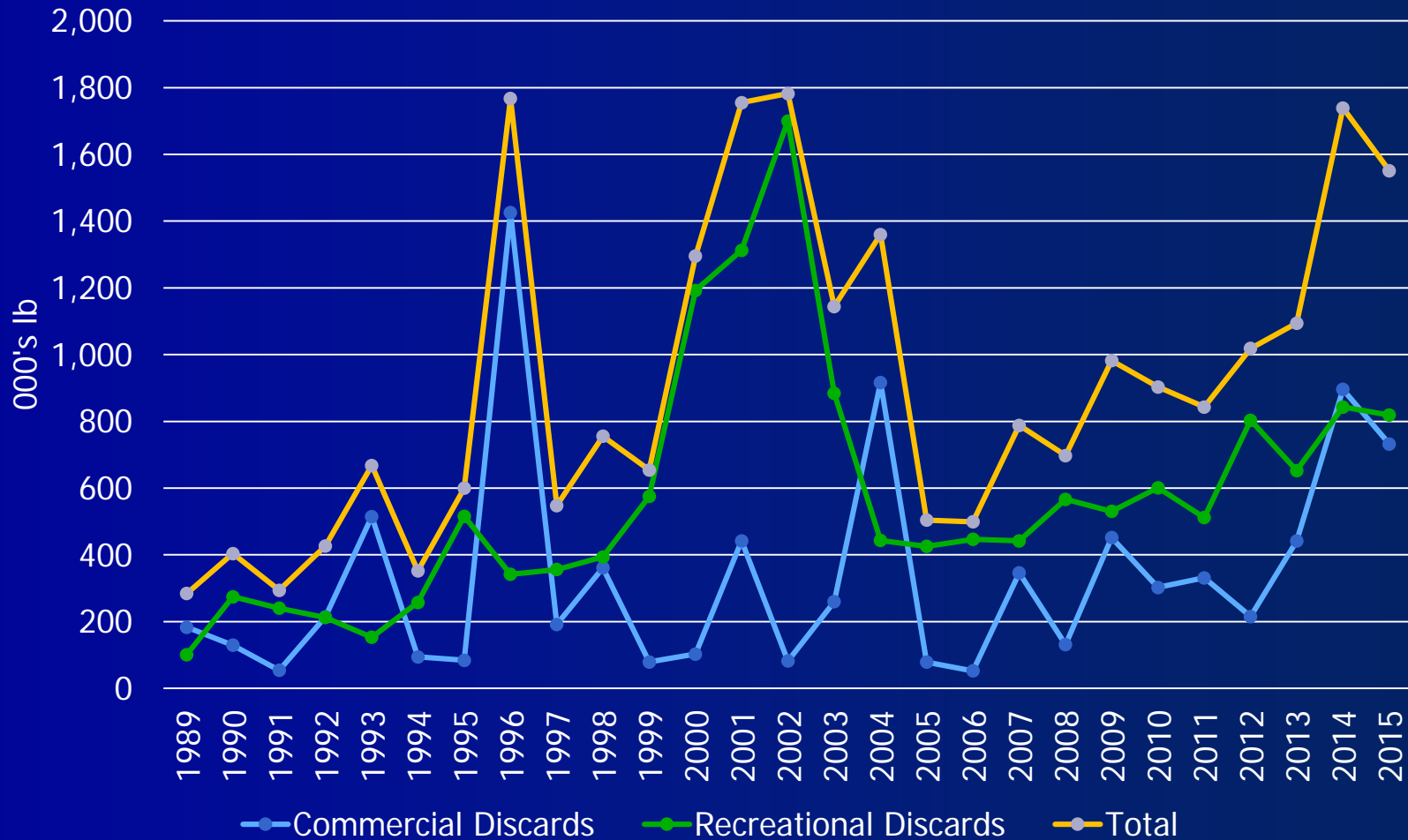
Total Black Sea Bass Landings



Fishery Performance



Total Black Sea Bass Discards



Fishery Performance



Year	Commercial Landings (mil lb)	Commercial Quota (mil lb)	Percent Overage (+)/ Underage(-)	Recreational Landings (mil lb)	Recreational Harvest Limit (mil lb)	Percent Overage (+) / Underage(-)
2011	1.69	1.71	-1%	1.17	1.78	-34%
2012	1.72	1.71	1%	3.19	1.32	142%
2013	2.26	2.17	4%	2.46	2.26	9%
2014	2.18	2.17	0%	3.67	2.26	62%
2015	2.29	2.21	4%	3.79	2.33	63%
5-yr Avg.	-	-	1.60%	-	-	48.40%
Prelim 2016	2.52	2.70	-7%	4.67	2.82	66%

Regulatory Review



- 2010 – 2015: Constant Catch
 - 2010 – 2013 (initial) = 4.50 million lb (2,041 mt)
 - 2013 (revised) – 2015 = 5.50 mil lb (2,494 mt)
- 2016 – 2017: adopted new methodology using MSE approach developed by Carruthers et. al 2014
 - 2016-2017 ABC = 6.67 mil lb (3,024 mt)
 - 2017 specifications would be revisited once new assessment was completed and reviewed

Staff Recommendation



- New approved benchmark stock assessment represents best available science to guide management decisions
- Presents a more comprehensive and robust picture on black sea bass resource
- OFL projections from assessment are appropriate for setting specifications
- Recommends setting multi-year specifications for 2017 – 2019 (re-vist out years)

Staff Recommendation



- Recommendations apply the following:
 - OFL projections from North and South developed separately, then combined by weighting the sub-units based on proportion of catch
 - Retrospective adjusted estimates (ex. SSB, Abundance) for each sub-unit are used as approved by peer review
 - Application of Council's Risk Policy:
 - Assumed typical life history
 - Assumed OFL CV of 60%

Staff Recommendation



Year	ABC (mil lb)	ABC (mt)	F	P* Value	SSB (mil lb)	SSB (mt)
2016	6.67	3,024	0.27	n/a	41.11	18,647
2017	10.47	4,750	0.36	0.4	35.88	16,275
2018	8.94	4,057	0.36	0.4	31.29	14,183
2019	7.97	3,617	0.36	0.4	28.26	12,820

SSC Recommendation



- Staff recommendation was agreed to by SSC
 - 2017 – 2019 specifications
 - Annual review with updated data (catch and indices)
 - Recreational overages – implications for out-year ABC's
 - Application of Council's Risk Policy
 - Typical/Atypical Life History
 - OFL CV

Based on SSC recommended ABC's

Commercial and Recreational Specifications
are as follows:



Black Sea Bass Updated 2017

OFL = 12.05 mil lb
January 2017 SSC Recommendation

ABC = 10.47 mil lb
January 2017 SSC Recommendation

Landings portion = 8.41 mil lb
2013–2015 Ave from assessment (80.7%)

Discards portion = 2.06 mil lb
2013–2015 Ave from assessment (19.7%)

Commercial landings = 4.12 mil lb
49% of ABC landings portion (per FMP)

Recreational landings = 4.29 mil lb
51% of ABC landings portion (per FMP)

Commercial discards = 0.97 mil lb
47.2% of ABC discards portion (avg. % of total discards attributable to commercial fishery 2013-2015)

Recreational discards = 1.09 mil lb
52.8% of ABC discards portion (avg. % of total discards attributable to recreational fishery 2013-2015)

Commercial ACL = 5.09 mil lb
Commercial landings plus commercial discards

Recreational ACL = 5.38 mil lb
Recreational landings plus recreational discards

Commercial ACT = 5.09 mil lb
Recommended by Monitoring Committee; equal to or reduced from ACL to account for management uncertainty

Recreational ACT = 5.38 mil lb
Recommended by Monitoring Committee; equal to or reduced from ACL to account for management uncertainty

Commercial Quota = 4.12 mil lb
ACT minus commercial discards

Recreational Harvest Limit = 4.29 mil lb
ACT minus recreational discards

State Quotas

Staff Recommendation



■ Commercial Quota

Management Measure	2016		2017		Basis
	mil lb.	mt	mil lb.	mt	
OFL	NA	NA	12.05	5,467	Stock assessment projections
ABC	6.67	3,024	10.47	4,750	Stock assessment projections/staff recommended application of Council risk policy
ABC Landings Portion	5.53	2,510	8.41	3,814	80.3% of ABC, based on average 2013 – 2015 % landings portion of total catch
ABC Discards Portion	1.13	514	2.06	936	19.7% of ABC, based on average 2013 – 2015 % discards portion of total catch
Commercial ACL	3.15	1,428	5.09	2,311	49% of ABC landings portion (per FMP allocation) + 47.2 % of ABC discards portion
Commercial ACT	3.15	1,428	5.09	2,311	Commercial ACL, less deduction for management uncertainty
Projected Commercial Discards	0.44	198	0.97	442	47.2% of ABC discards portion, based on 2013-2015 average % discards by sector
Commercial Quota	2.7	1,226	4.12	1,869	Commercial ACT, less discards

2016 specifications are provided for comparison

2017-2019 recommended specifications

Staff Recommendation



■ Commercial Quota (cont.)

Management Measure	2018		2019	
	mil lb.	mt	mil lb.	mt
OFL	10.29	4,669	9.18	4,163
ABC	8.94	4,057	7.97	3,617
ABC Landings Portion	7.18	3,258	6.4	2,904
ABC Discards Portion	1.76	799	1.57	713
Commercial ACL	4.35	1,974	3.88	1,760
Commercial ACT	4.35	1,974	3.88	1,760
Projected Commercial Discards	0.83	377	0.74	336
Commercial Quota	3.52	1,596	3.14	1,423

Staff Recommendation



■ Recreational Harvest Limit

Management Measure	2016		2017		Basis
	mil lb.	mt	mil lb.	mt	
Recreational ACL	3.52	1,597	5.38	2,439	51% of ABC landings portion (per FMP allocation) + 52.8 % of ABC discards portion
Recreational ACT	3.52	1,597	5.38	2,439	Recreational ACL, less deduction for management uncertainty
Projected Recreational Discards	0.70	317	1.09	494	52.8 % of ABC discards portion, based on 2013-2015 average % discards by sector
Recreational Harvest Limit	2.82	1,280	4.29	1,945	Recreational ACT, less discards

2016 specifications are provided for comparison

2017-2019 recommended specifications

Staff Recommendation



■ Recreational Harvest Limit (cont.)

Management Measure	2018		2019	
	mil lb.	mt	mil lb.	mt
Recreational ACL	4.59	2,083	4.1	1,858
Recreational ACT	4.59	2,083	4.1	1,858
Projected Recreational Discards	0.93	422	0.83	376
Recreational Harvest Limit	3.66	1,661	3.27	1,481

Monitoring Committee Recommendation



- Staff recommendation for ACLs/ACTs was agreed to by Monitoring Committee
- Support 3-year specifications
 - Annually revisit catch and landings for potential modifications
 - Support an update assessment in 2018 for 2019 specs
 - Re-evaluate changes in discards

Monitoring Committee Recommendation (cont.)



- ACLs=ACTs – no deduction for management uncertainty
 - Commercial landings within 2% of quota over last 5 years
 - Significant overages of rec harvest compared to RHL
 - However RHL not reflective of large and increasing stock abundance
 - New assessment indicates RHLs during time would have been much higher; overages may not have occurred
 - Agree with staff recommendation and justification for not applying rec and comm AMs from 2015 in 2017



2017 Black Sea Bass Recreational Measures

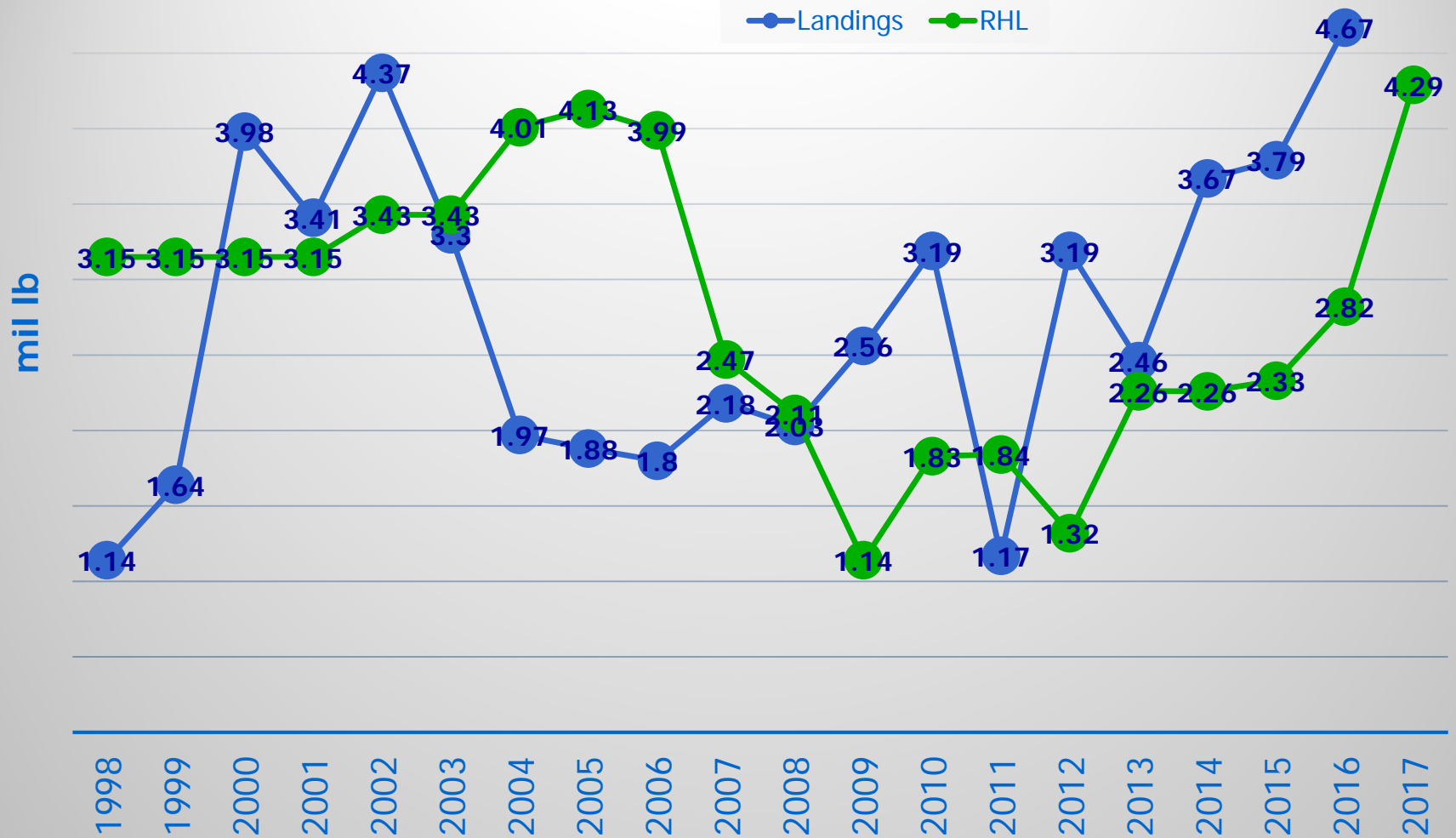
2016 Projections



2016 RHL	2.82 mil lb
Landings through wave 5	4.55 mil lb
2016 Proj. Landings*	4.67 mil lb
2017 RHL	4.29 mil lb
2017 Coastwide reduction	8%

*Projected using % landings by wave in 2015; no state adjustments given the small contribution (3%) of Wave 6 landings

Harvest Limits and Landings



2016 Federal Measures



- 12.5-inch TL minimum size
- 15 fish possession limit
- May 15-September 21 and October 22-December 31

2016 State Measures



- Since 2011: Commission has approved “ad hoc regional management” in state waters
- At Dec joint meeting: agreed to continue ad hoc regional management – at least until RHL and measures are reconsidered

2016 State Measures (N)



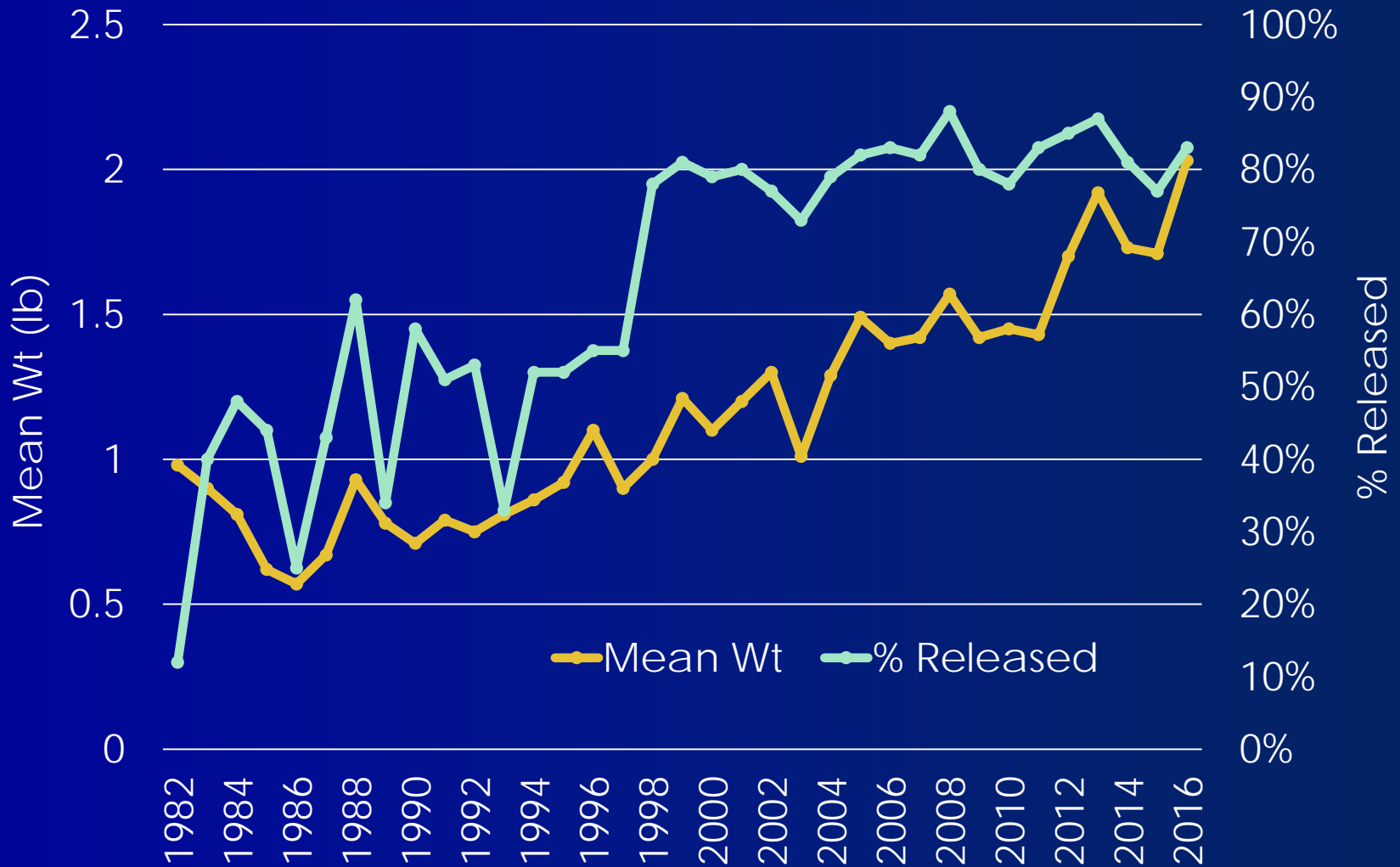
State	Min. Size (in.)	Bag	Open Season
ME	13	10 fish	May 19 - September 21; October 18-December 31
NH	13	10 fish	January 1 - December 31
MA	15	5 fish	May 21-August 31
RI	15	3 fish	June 24-August 31
		7 fish	September 1 - December 31
CT	15	5 fish	May 1-December 31
CT authorized party/charter	15	8 fish	May 1-December 31
NY	15	3 fish	June 27-August 31
		8 fish	September 1-October 31
		10 fish	November 1-December 31
NJ	12.5	10 fish	May 23-June 19
		2 fish	July 1-August 31
	13	15 fish	October 22-December 31

2016 State Measures (S)

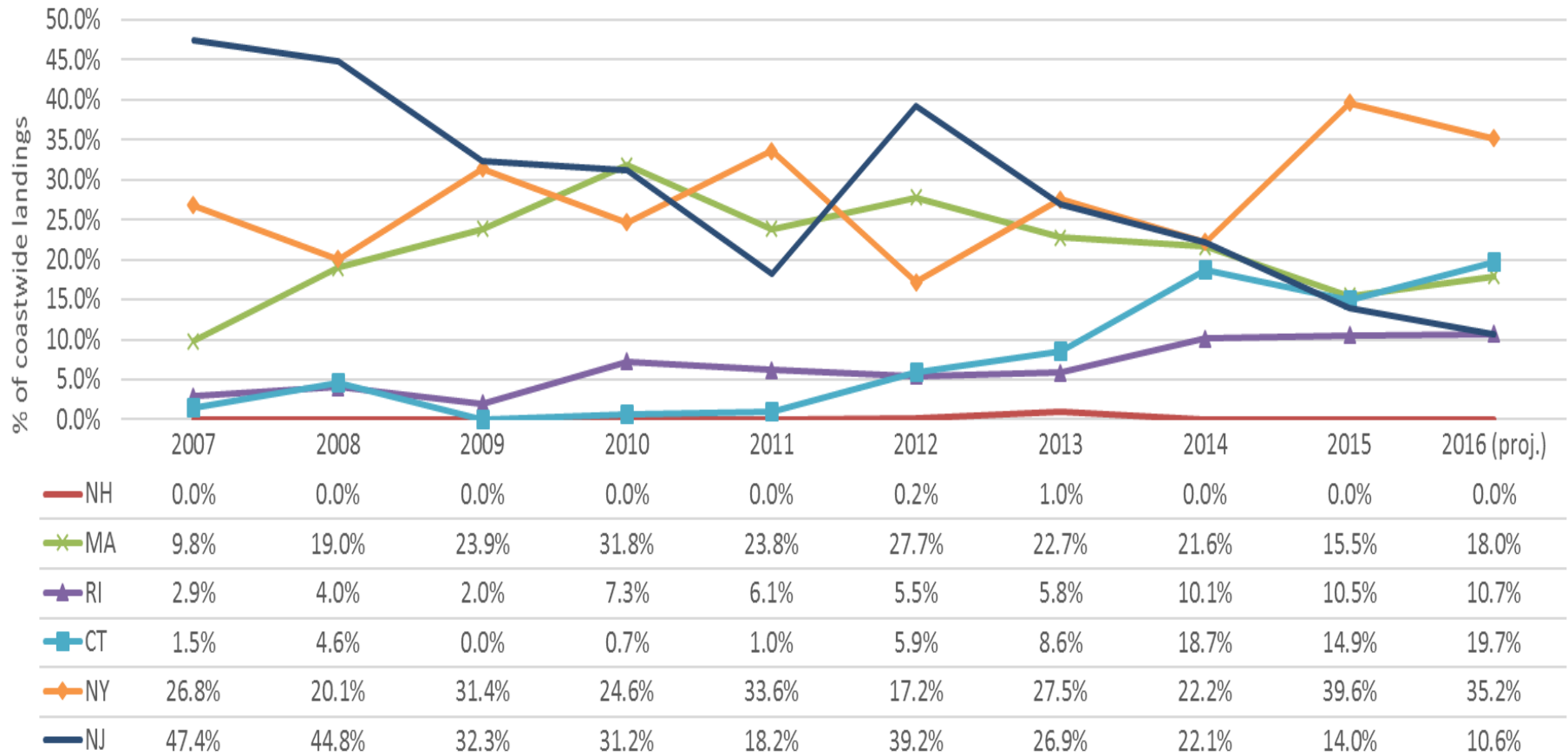


State	Min. Size (in.)	Poss. Limit	Open Season
DE	12.5	15 fish	May 15 - September 21 and October 22 -
MD			
PRFC			
VA			
NC (north of Cape Hatteras)			

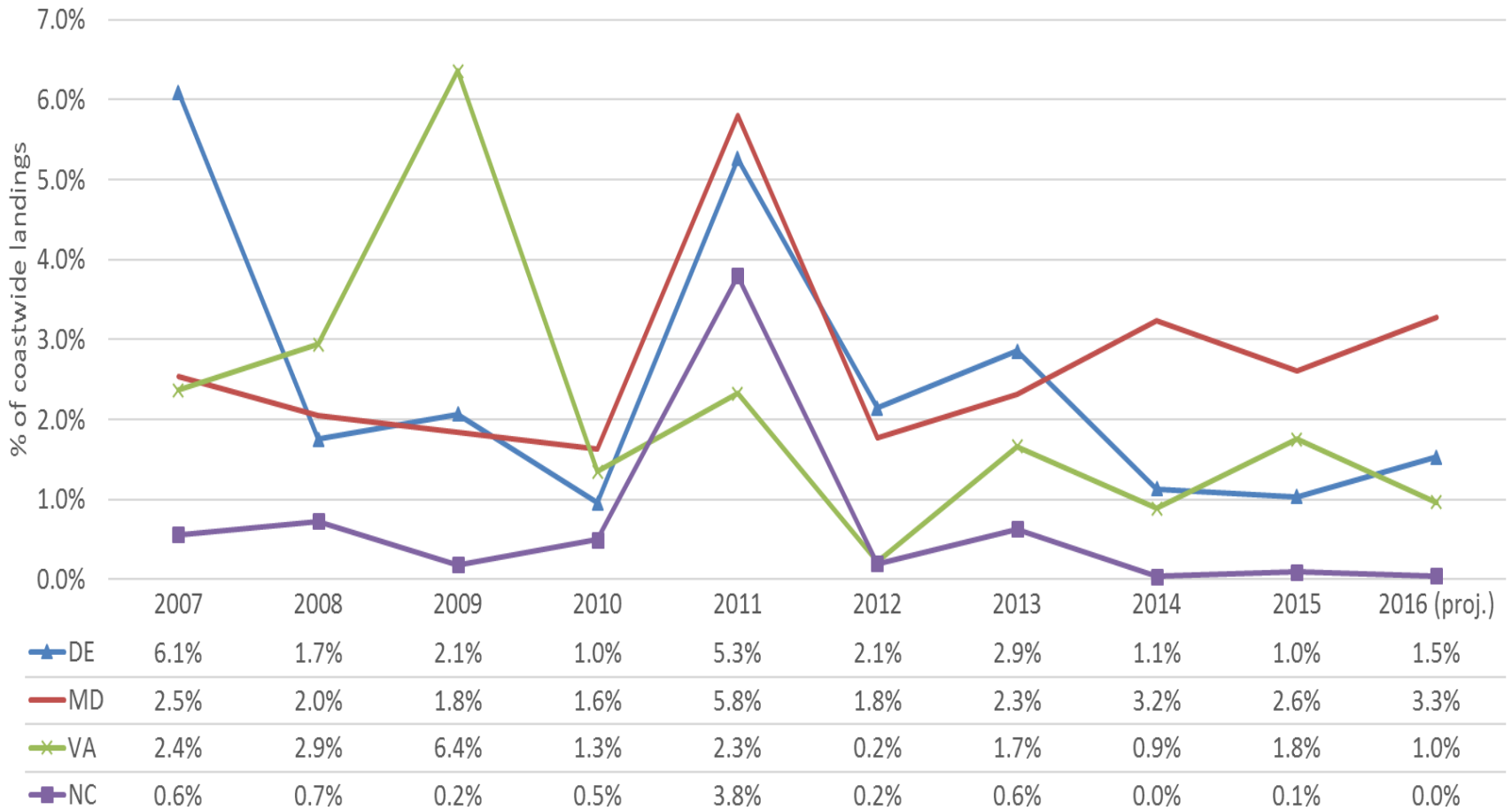
Mean Weight and Percent Released



New Hampshire-New Jersey



Delaware-North Carolina



Monitoring Committee Recommendation



- The 2017 RHL is 4.29 mil lb
- An approximate 8% reduction needed based on 2016 preliminary harvest
 - Subject to change with Wave 6 and Final estimates
- Staff recommended *status quo* federal measures
 - 12.5" size; 15 fish possession; May 15 – Sept 21, Oct 22 – Dec 31

Monitoring Committee Recommendation (cont.)



- Continuation of ad-hoc regional management
- Southern Region (DE-NC) follow *status quo* federal measures
- Northern States (NJ-MA) – 8% reduction not needed and *status quo* measures
 - Justification:
 - Declining stock abundance – lower availability – lower catch/harvest
 - Low F in recent years and expanding stock
 - Uncertainty around MRIP derived pt. estimate
 - Development of management strategy/control rule

Monitoring Committee Recommendation (cont.)



- If reduction is needed:
 - Southern Region remain *status quo* – account for less than 5% of coastwide harvest
 - Reduction achieved through Northern Region state measures
 - Default coastwide measures
 - Only needed if reduction is needed and not implemented by states
 - 15" size; 3 fish possession; June 15 – Sept 15

Additional Monitoring Committee Comments



- Concerns with ad-hoc approach
 - Large differences in management measures – between states and regions
 - Measures have become extremely complex
 - Little ability to predict and control harvest
 - Need to prioritize consistency – regulatory & analytical
- Differences in NJ recreational fishery
- ASMFC Working Group
 - Evaluating ad-hoc management
 - Opportunities for consistent measures and consistent application of reductions/liberalizations

QUESTIONS?

