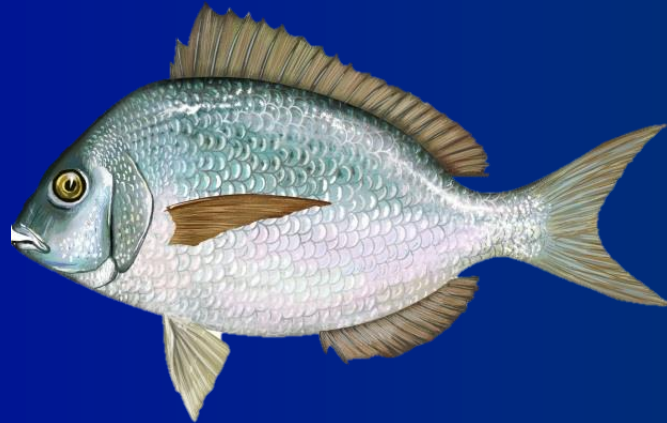


Scup Specifications

2016 - 2018

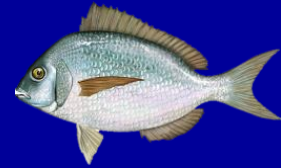


Council and Board Meeting

August 12, 2015

New York, NY

Outline



1. Specifications Timeline
2. Past Specifications
3. Stock Status
4. Recent Fishery Performance
5. Advisor Input (pre-ABCs)
6. Staff Recommendations
7. SSC Recommendations
8. Monitoring Committee Recommendations
9. Advisor Input (post-ABCs)

Specifications Timeline



June 2-5

- Stock Assessment Review Committee meeting

June 17

- Advisory Panel meeting (*Fishery Performance Reports*)

July 22-23

- SSC meeting (*ABCs*)

July 23-24

- Monitoring Committee meeting (*ACTs*)

July 29

- Advisory Panel webinar



2013-2015 Specifications



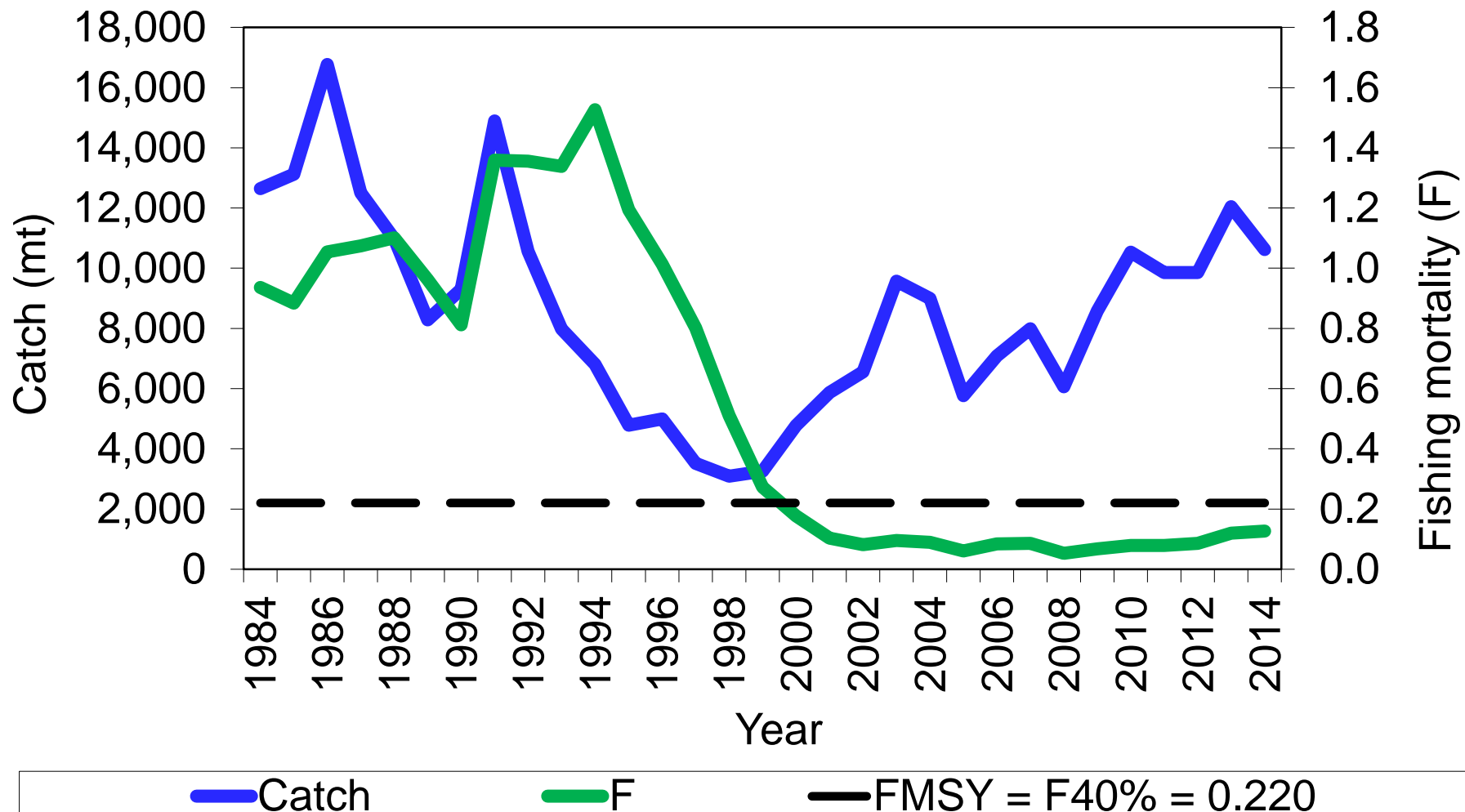
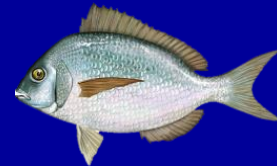
- 3-year specs set for 2013-2015
 - ABCs based on 2012 assessment update and risk policy for species with typical life history and SSC-assigned OFL CV of 100%.
 - Constant F assumption used to derive ABCs for 2014 and 2015 (using F for 2013 ABC = 0.142)
 - Specs reviewed in 2013 and 2014. No changes recommended.

2015 Benchmark Assessment

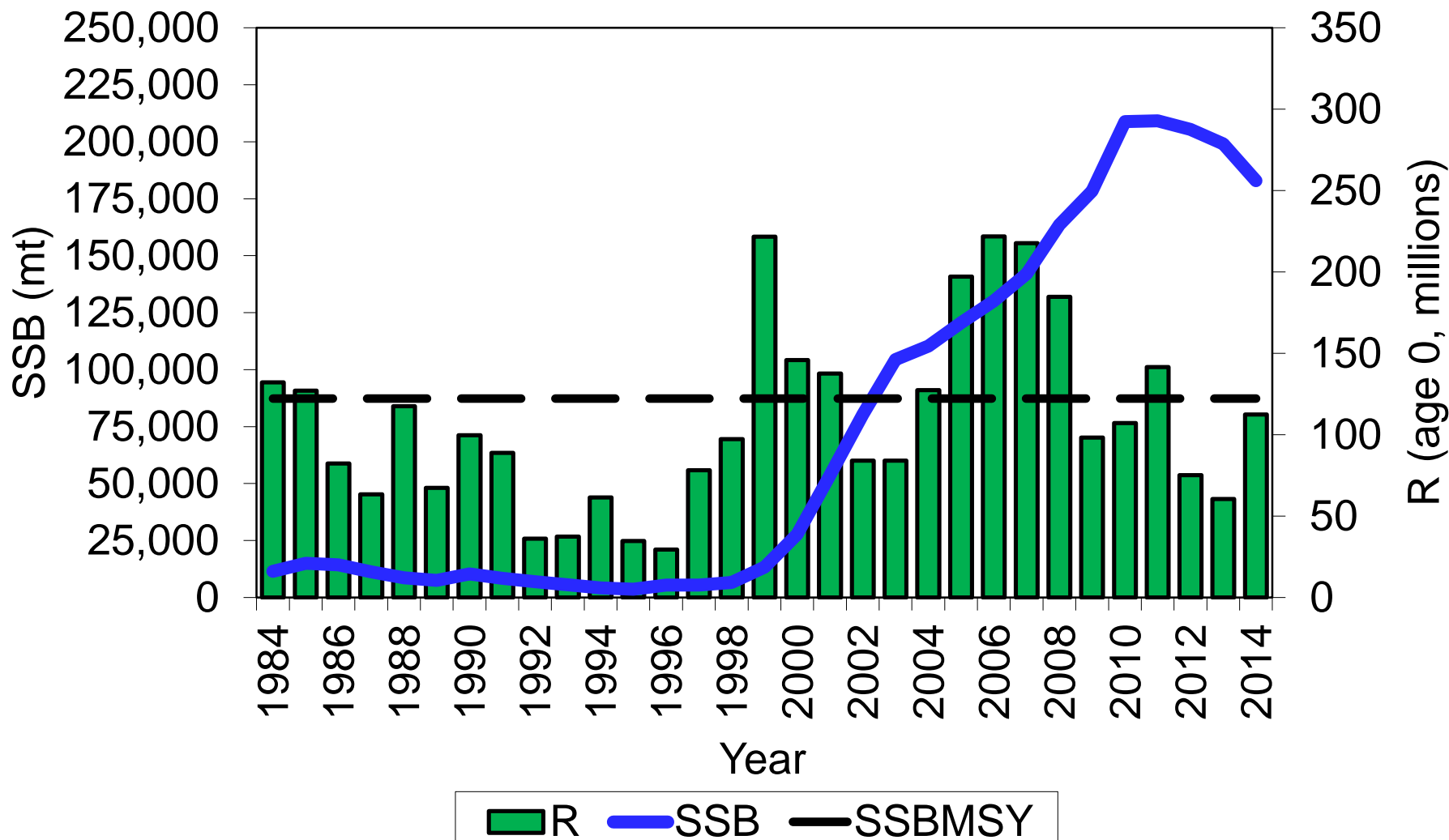
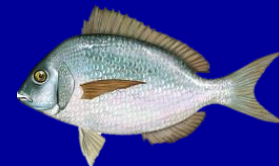


- SAW/SARC 60
- Statistical Catch at Age model
- Data through 2014
- Not overfished
- No overfishing

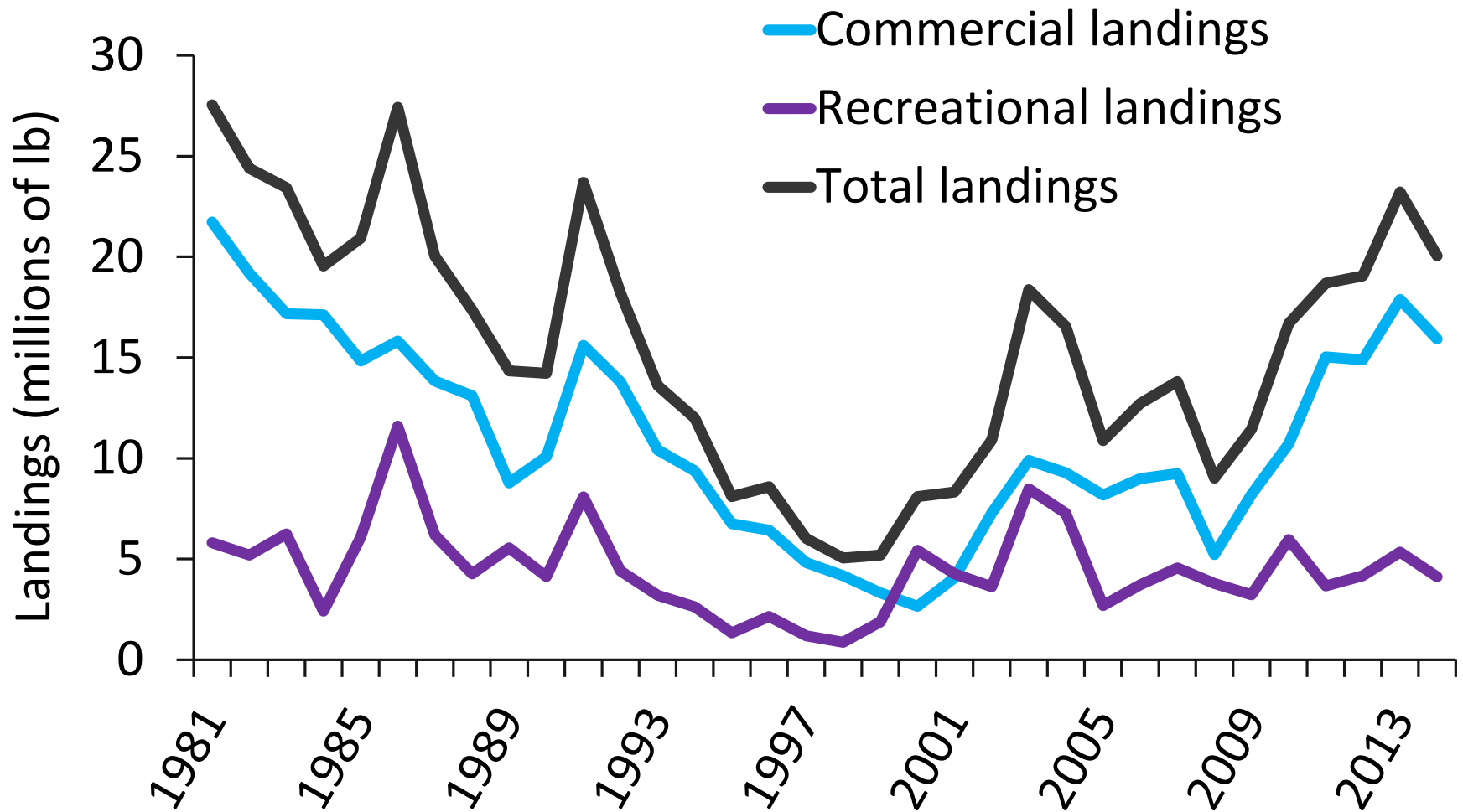
Fishing Mortality



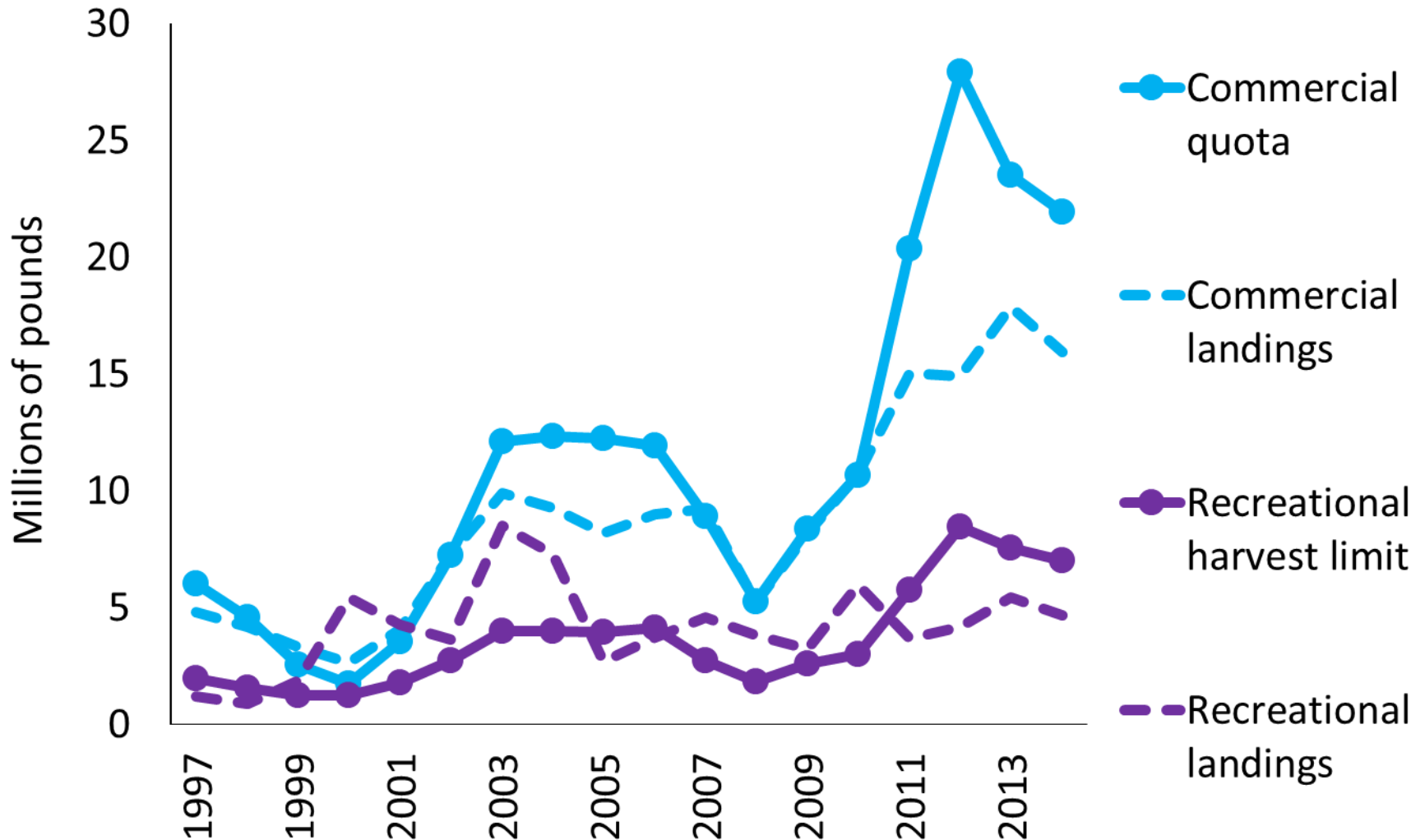
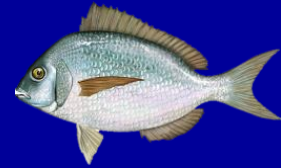
Biomass



Landings Trends



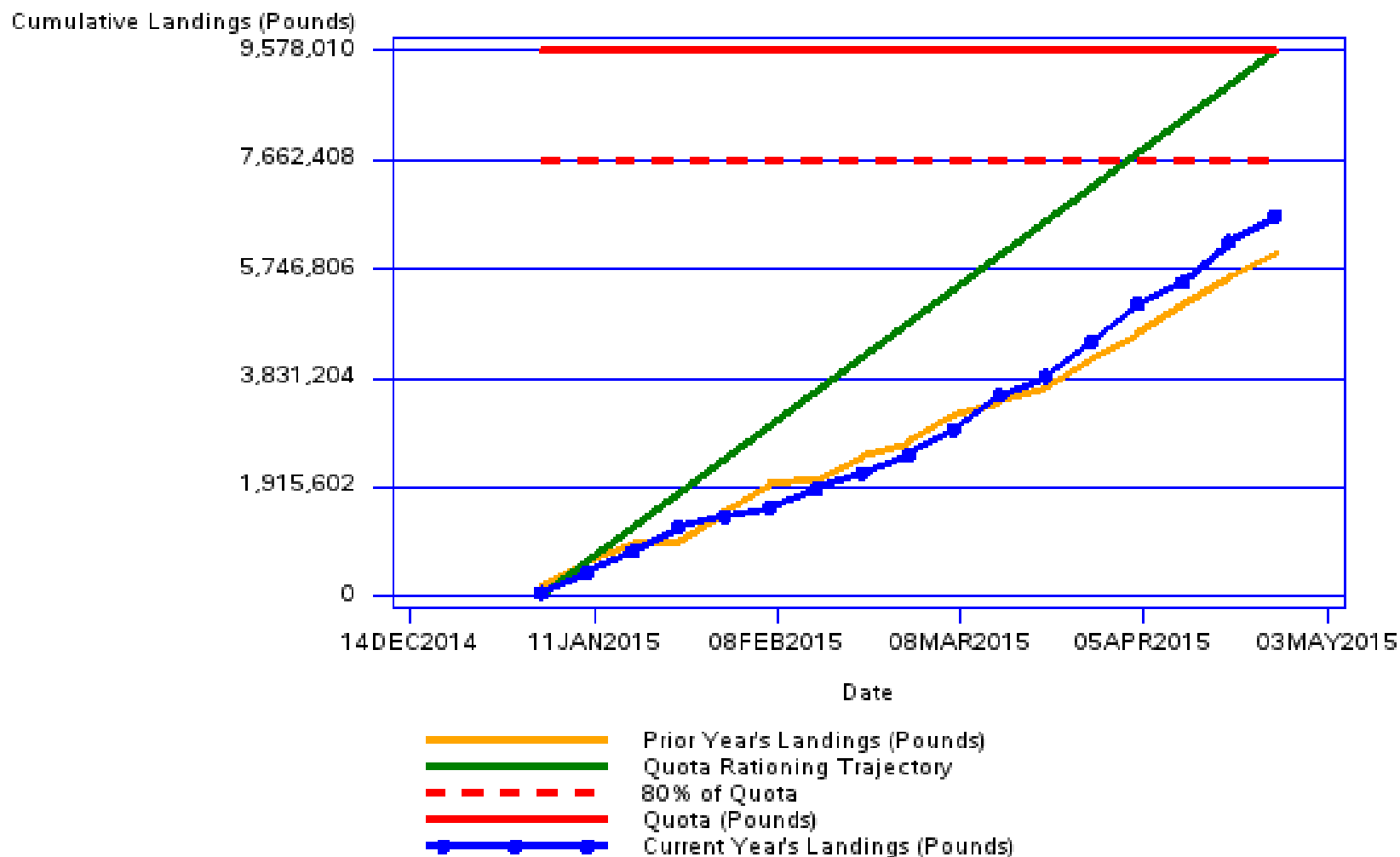
Fishery Performance



Winter I 2015 commercial landings



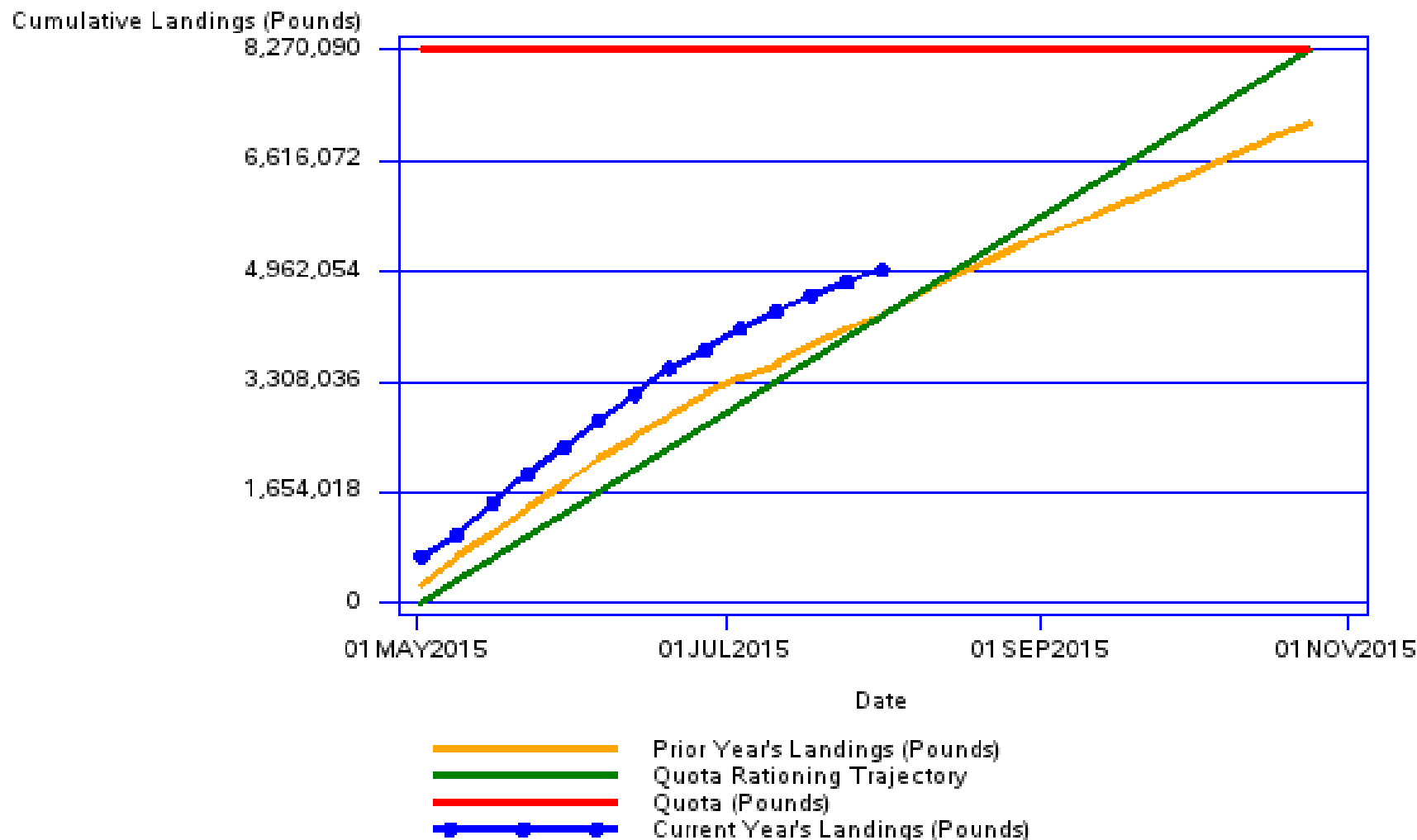
Scup Quota Monitoring Report



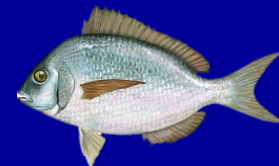
Summer 2015 commercial landings



Scup Quota Monitoring Report



Advisor Comments (pre-ABC)



■ *High abundance*

- High abundances of small, medium, and jumbos
- Impacts on other species

■ *Market factors*

- Low demand, low price
- Rebranding could help

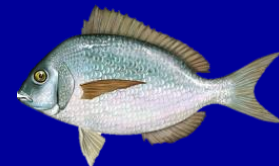
Advisor Comments (pre-ABC)



Commercial management

- High possession limits allow fishermen to make a profit
- Not difficult to catch full possession limit
- Mesh size and minimum fish size regs are redundant and create waste
- GRAs no longer needed
- Possession level triggering minimum mesh size should be higher
- Should modify quota period dates

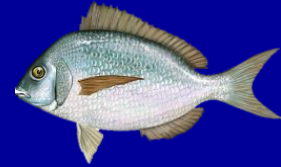
Advisor Comments (pre-ABC)



Recreational management

- MRFSS/MRIP estimates not accurate
- Desire for reduced minimum size in northern states
- Stability more important than liberalization
- “Bonus season” in northern states allows for state-by-state flexibility
- Not much party/charter scup fishing in winter, hard to avoid black sea bass
- An important recreational fish in Long Island Sound

Staff Recommendations



Stock assessment included:

- 2 OFL projection options
 - Assume 75% of ABC is caught in 2015
 - Assume 100% of ABC is caught in 2015
- 3 ABC projection options
 - 30% OFL CV (SARC recommendation)
 - 60% OFL CV (used for summer flounder assessment)
 - 100% OFL CV (used for last scup assessment)



MAFMC SSC ABC Recommendation

Scup
2016 Fishing Year

1) The level of uncertainty that the SSC deems most appropriate for the information content of the most recent stock assessment, based on criteria listed in the Omnibus Amendment.

SSC Decision: SSC-modified OFL probability distribution

- SARC 60 scup benchmark assessment was accepted by peer review.
- Assessment/review team was the first to suggest a CV for OFL
- Important uncertainties in OFL not captured in assessment, e.g., exploitation proxy



2) *If possible, the level of catch (in weight) and the probability of overfishing associated with the overfishing limit (OFL)..*

SSC Decision:

2016	16,238 mt	35.798 M lbs
2017	14,556 mt	32.090 M lbs
2018	13,464 mt	29.683 M lbs

- Accepted F_{MSY} proxy = $F_{40\%} = 0.220$



3) The level of catch (in weight) and the probability of overfishing associated with the acceptable biological catch (ABC) for the stock.

SSC Decision:

2016	14,110 mt	31.107 M lbs	P*=0.4
2017	12,881 mt	28.397 M lbs	P*=0.4
2018	12,270 mt	27.050 M lbs	P*=0.4

- SSC applied at CV=60% rather than the previous CV=100% and rejected SARC recommended CV=30%
- ABC is ~ 87% of OFL



3) The level of catch (in weight) and the probability of overfishing associated with the acceptable biological catch (ABC) for the stock.

SSC Decision:

- An updated assessment is preferred for the SSC review of the Scup ABCs next year.
- Absent assessment update, the SSC will review
 - Survey CPUE (kg/tow) in NEFSC fall survey
 - Mean size and size structure in NEFSC fall survey
 - Exploitation ratio (catch/survey biomass).



4) The most significant sources of scientific uncertainty associated with determination of OFL and ABC.

SSC Decision:

- Rarity of age 3+ Scup in surveys so that dynamics of the older ages are driven principally by catches.
- Uncertainty over natural mortality (M) rate.
- Uncertainty over MSY proxies.
- Survey indices are particularly sensitive to Scup availability; and
- The projection on which the ABC was determined is based on an assumption that the quotas would be landed in 2016, 2017, and 2018.



5) Ecosystem considerations accounted for in the stock assessment.

SSC Decision: Assessment included specific ecosystem considerations

- Index of habitat suitability was calculated and used as a covariate in survey catchability estimation.
Approach did not improve model fits



6) Research recommendations.

- Improve estimates of discards and discard mortality for commercial and recreational fisheries.
- Evaluate the degree of bias in the catch.
- Explore the utility of incorporating factors that affect Scup availability to resource surveys.
- An MSE could evaluate the effectiveness of Scup management procedures.
- Conduct experiments to estimate survey catchability of Scup.
- Explore additional source of age-length data from historical surveys.



6) Certification that the recommendations provided by the SSC represent the best scientific information available.

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.



Monitoring Committee



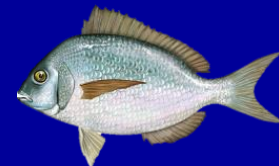
- No reduction from ACL to ACT for management uncertainty
- Should develop ACT control rules or guidelines for addressing management uncertainty in the future

Monitoring Committee



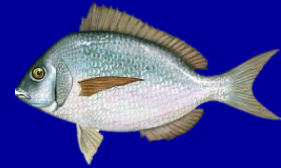
- Recommended no changes to:
 - Minimum fish size
 - Minimum mesh size and threshold possession levels triggering minimum mesh size
 - Quota period possession limits and quota rollover provisions
- Will evaluate these measures (and more), present recommendations at Dec. 2015 joint meeting

Commercial Quota



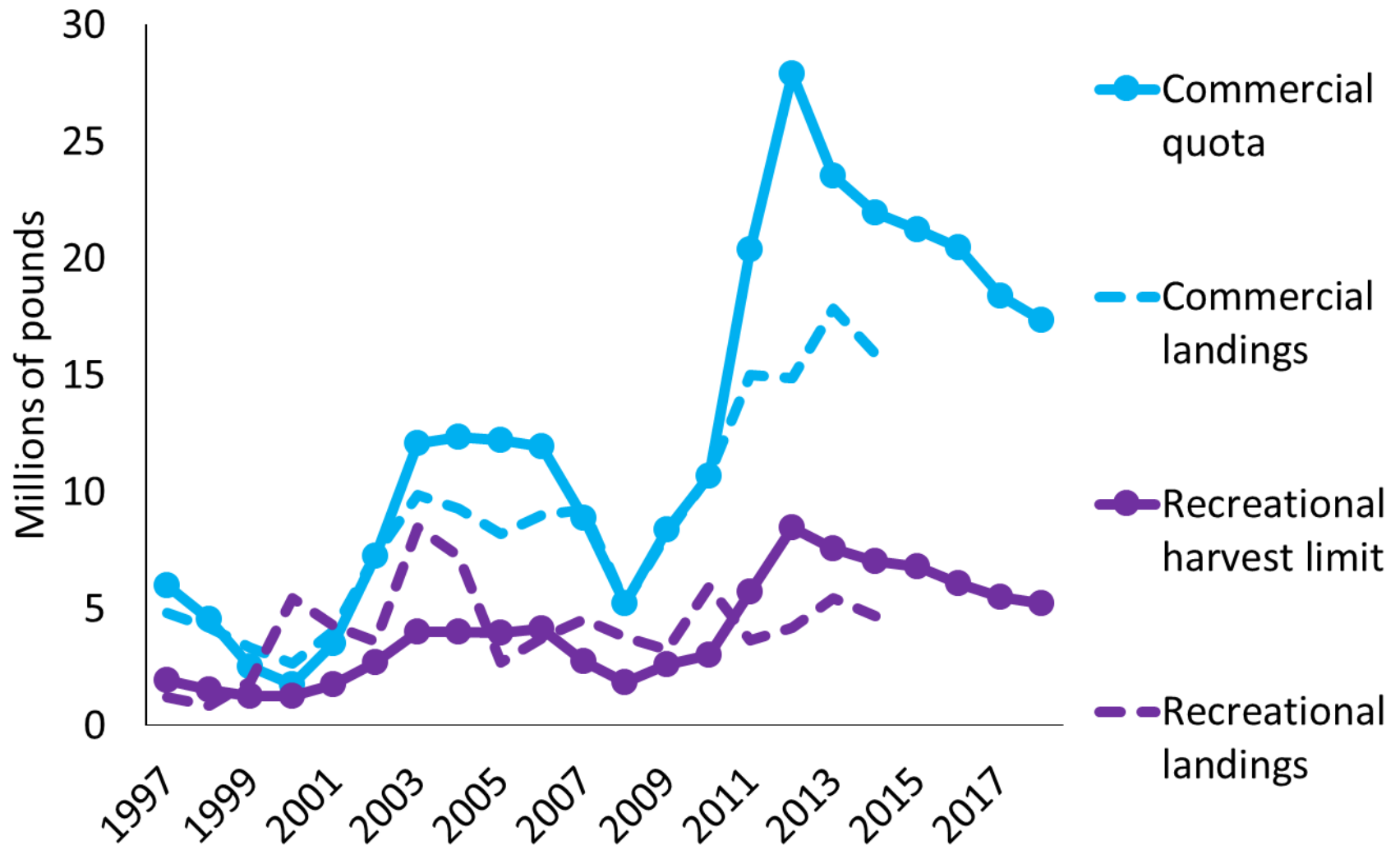
Management Measure (all in mil lb)	2015	2016	2017	2018
OFL	47.8	35.80	32.09	29.68
ABC	33.77	31.11	28.40	27.05
ABC landings	28.03	26.56	23.88	22.55
ABC discards	5.74	4.55	4.52	4.50
Commercial ACL	26.34	24.26	22.15	21.10
Commercial ACT	= ACL			
Projected discards	5.11	3.80	3.77	3.76
Commercial quota	21.23	20.47	18.38	17.34

Recreational Harvest Limit

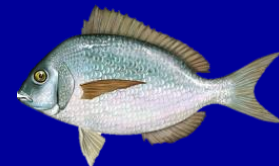


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OFL	47.8	35.80	32.09	29.68
ABC	33.77	31.11	28.40	27.05
ABC landings	28.03	26.56	25.30	23.36
ABC discards	5.74	4.55	4.52	4.50
Recreational ACL	7.92	6.84	6.25	5.95
Recreational ACT	= ACL			
Projected discards	0.67	0.75	0.75	0.75
Recreational Harvest Limit	6.80	6.09	5.50	5.21

Quotas/Harvest Limits

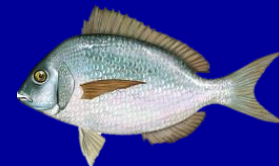


Advisor Comments (post-ABC)



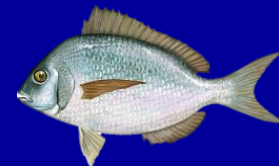
- Quotas should not decrease if SSB is $\sim 200\%$ of target and neither sector has reached landings limits in 4 years
- Huge biomass of scup feeding on other creatures

Advisor Comments (post-ABC)



- Commercial sector not harvesting full quota because of low prices
- Fishermen are trying to rebuild market. Decreasing quotas could hinder those efforts
- Effort on scup will increase due to restrictions on other species

Advisor Comments (post-ABC)



- Problems with assessment
- SARC recommendation of 30% OFL CV should be considered best available science
- Discard calculations for quota-setting used 2012-2014 averages, but changes in commercial possession limit caused changes in discards over that period

Questions?

