



# SSC Report to NEFMC



Newport, RI  
December 5, 2018

Jason McNamee, SSC Chair

# Topics

- Scallop OFLs & ABCs 2019-2020
- Atl. Herring OFLs & ABCs 2019-2021



# Scallops



# Terms of Reference

- Review results from the recent scallop benchmark assessment as they relate to new biological reference points, the Scallop PDT's updated projections for the scallop resource, and provide the Council with OFL and ABC recommendations for fishing years 2019 and 2020 (default).
- Review changes to meat weights used to develop 2018 survey estimates, and growth and selectivity parameters used in the SAMS model to project biomass in portions of the Nantucket Lightship. Provide the Council with a recommendation as to whether these changes are appropriate.

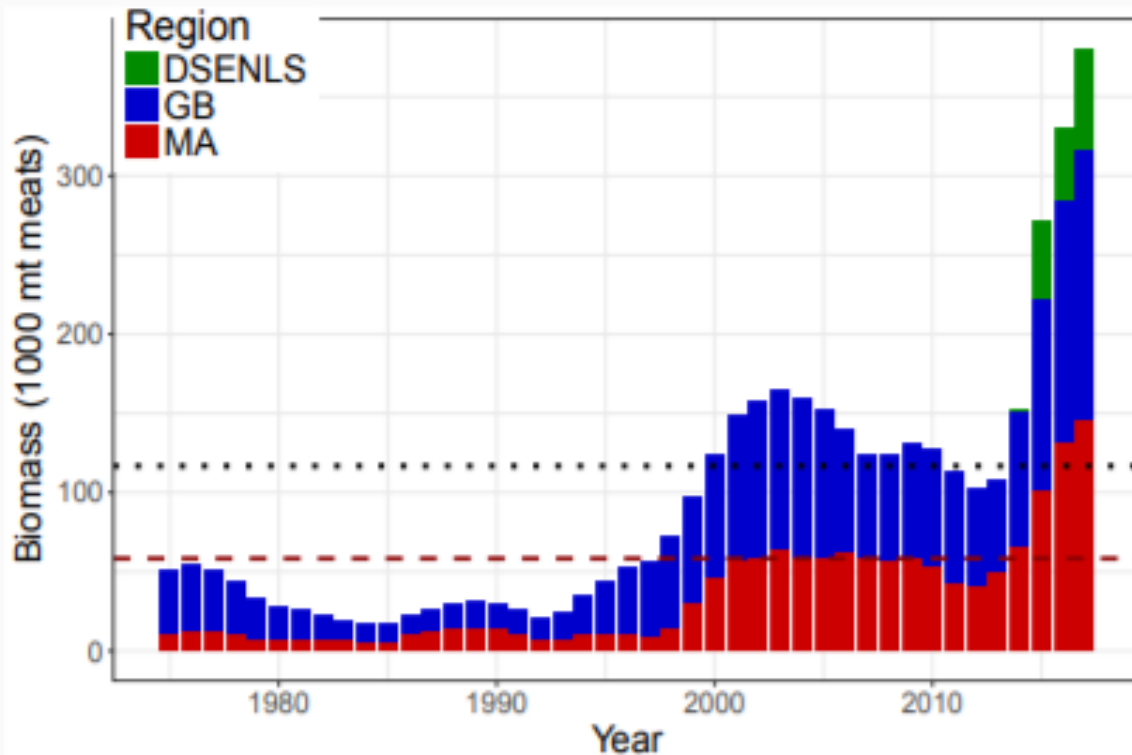


# Scallops: Growth

- The SSC discussed changes made to the stock assessment that were designed to account for slow growth of scallops within the Nantucket Lightship area
  - Supported changes to meat weights used to develop 2018 survey estimates, and growth and selectivity parameters used in the SAMS model to project biomass in portions of Nantucket Lightship
  - Changes deemed a reasonable approach and based on the best available science
- The SSC reaffirms recommendation that additional research be conducted to further elucidate the drivers of slow growth in the Nantucket Lightship region



# Scallops: Biomass estimates



# Scallops: SSC Comments

- Despite uncertainties regarding growth affecting the estimates underlying the catch advice, the SSC approves the ABC and OFL calculations as recommended by the PDT
- SSC recommended further research to improve understanding of slow growth in the Nantucket Lightship area
  - Changes in bottom temperature
  - Changes in food supply
  - Fishing effects
- SSC recommends continuation of work to develop an estimate of SSB based on gonad weights and related reference points
  - Some concern about model consistency among assessments
  - Would be helpful to compare new configuration with previous to understand the impact of changes



# Scallops: OFL and ABC Summary

- OFL and ABC values (expressed in metric tons)

Year	ABC-Land	ABC-Disc	ABC-Tot	OFL-Land	OFL-Disc	OFL-Total
2019	57,003	5,986	62,989	66,791	6,630	73,421
2020	46,028	4,915	50,943	53,994	5,453	59,447





# Scallops: Summary

- SSC notes that these recommendations are based on the best scientific information available
- SSC approves changes to meat weights used to develop 2018 survey estimates, and growth and selectivity parameters used in the SAMS model to project biomass in portions of the Nantucket Lightship
- SSC recommends further investigation into:
  - 1) different growth rates found in different scallop harvesting areas, particularly the Nantucket Lightship region,
  - 2) further work to develop gonad-based estimates of SSB and reference points, and
  - 3) runs of previous assessment model configurations to compare to new version of assessment



# Atlantic Herring



# Terms of Reference

- Review information provided by the Council's Herring Plan Development Team, the results of recent Atlantic herring benchmark stock assessment (SAW 65, 2018), and using the acceptable biological catch (ABC) control rule selected by the Council in Amendment 8, recommend the overfishing level (OFL) and the ABCs for Atlantic herring for 2019-2021



# Atl Herring: Background

- Results of Atl. herring benchmark stock assessment indicated stock status was not overfished and no overfishing occurring
- Short-term projections of future stock status were carried out assuming age 1 recruitment for 2018 was derived from the estimated recruitments for 2013-2017, whereas recruitment for 2019-2021 was drawn from estimates spanning 1965-2015
- The key concern for this stock is the relatively poor recruitment in 2013-2017
- If estimated recent low recruitment continues, SSB is likely to remain low in the near term, putting the stock at high risk of becoming overfished in years 2019-2021

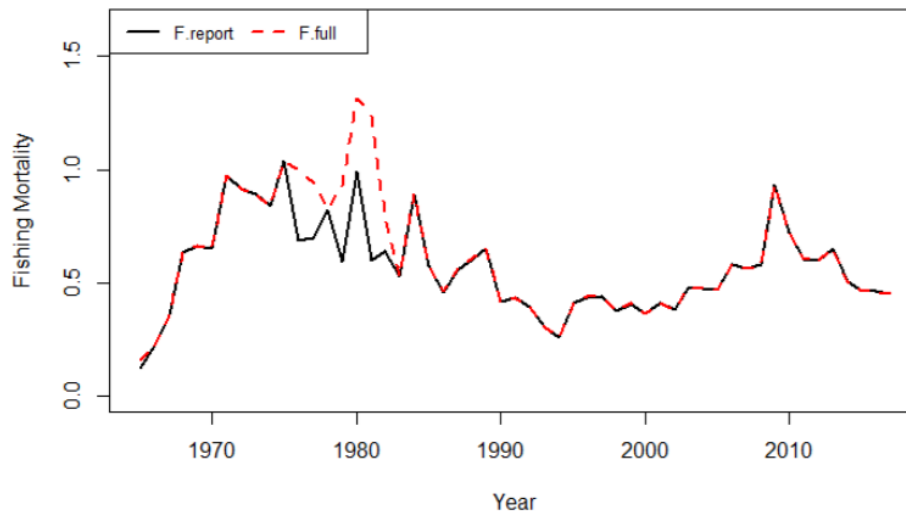
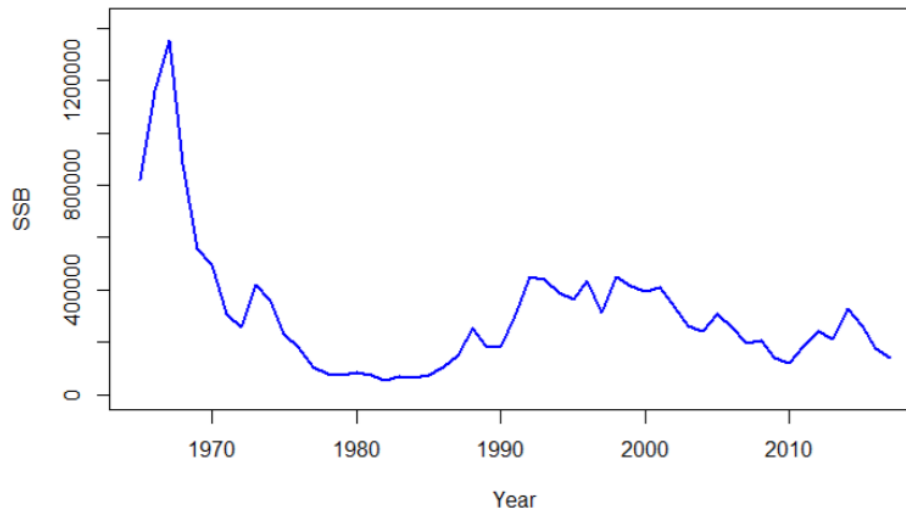


# Atl Herring: Background

- ABC recommendations made by the PDT were based on the Council-selected ABC control rule which was informed by the MSE process
  - Control rule is biomass based, with a maximum fishing mortality of 0.8 when biomass is greater than 50%  $SSB/SSB_{msy}$
  - When biomass falls below 50%  $SSB/SSB_{msy}$ ,  $F$  declines linearly until 0.1, when fishing mortality is set to zero, or a fishery cutoff at 0.1
  - Control rule was applied to projected biomass estimates for 2019-2021



# Atl Herring : Biomass and F estimates



# Atl Herring : SSC Comments

- SSC had reservations about the projections for Atl. herring and were concerned about the assumptions regarding future recruitment
  - Recruitment in projections for 2019-2021 drawn from 1965-2015 and resulting projected biomass showed a substantial increase over time
  - SSC did not have confidence in projected increase in biomass in 2021 and were concerned about setting ABC based on this value
  - SSC resolved by making ABC recommendations for 2019 and 2020 based on the ABC control rule but recommended keeping ABC in 2021 the same as 2020 due to the uncertainty in the projections



# Atl Herring : SSC Comments

- SSC recommended the NEFMC request an update assessment in 2020 based on the existing benchmark assessment
- Objective would be to verify projected trend in biomass and recruitment with aim of revising advice for 2021 based on more informed estimates of recent recruitment





# Atl Herring : OFL and ABC Summary

- OFL and ABC values (expressed in metric tons)

Year	OFL	ABC
2019	30,668	21,266
2020	38,878	16,131
2021	59,788	16,131



# Atl Herring : Summary

- SSC recommends an update stock assessment for Atlantic herring in 2020 based on the recent benchmark assessment
- SSC recommends further investigation into understanding the recent low recruitment of Atlantic herring and possible drivers



Questions?

