



**NOAA**  
**FISHERIES**

# SEDAR 76 Update

## SAFMC June 2025 Meeting

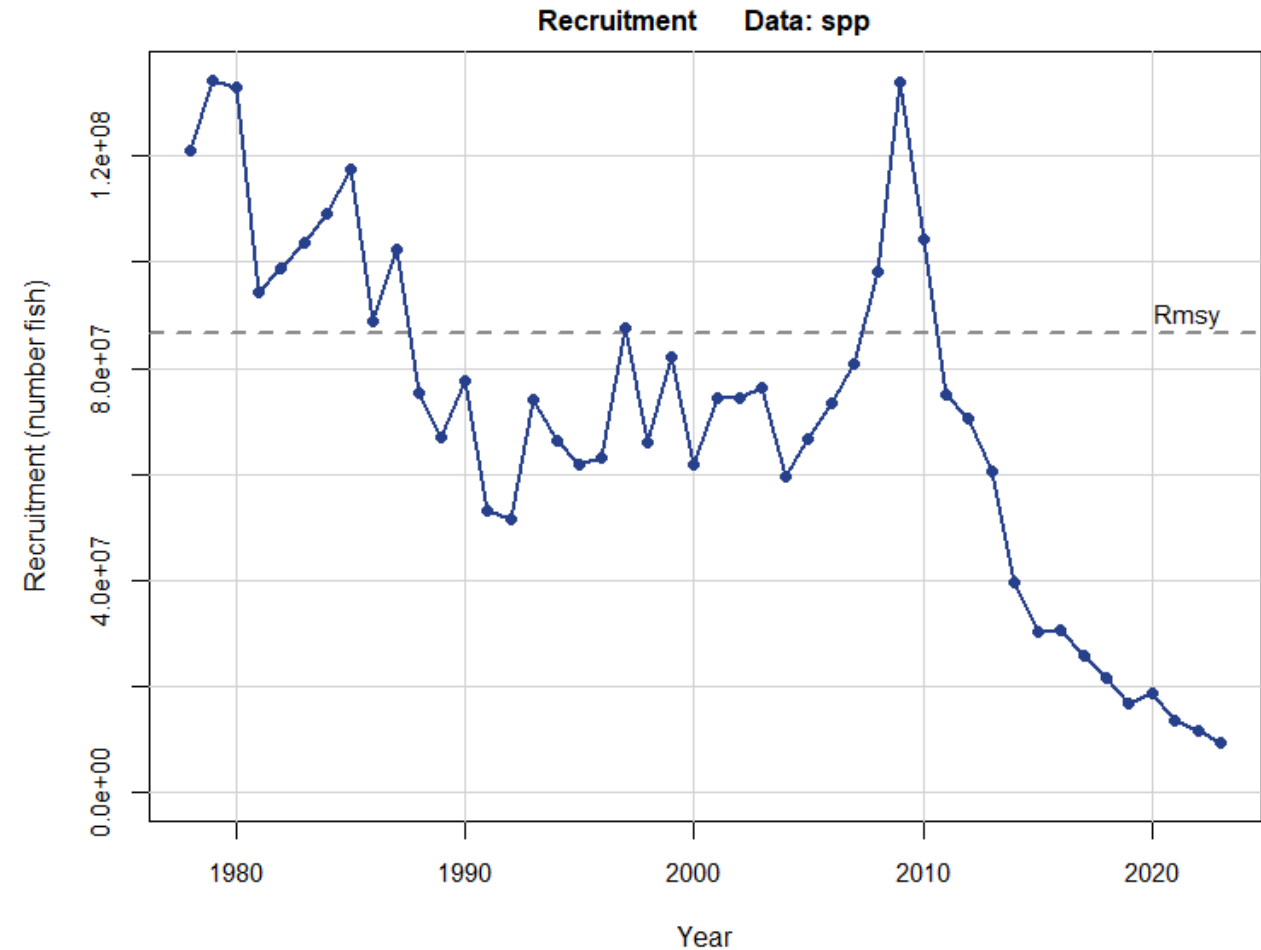
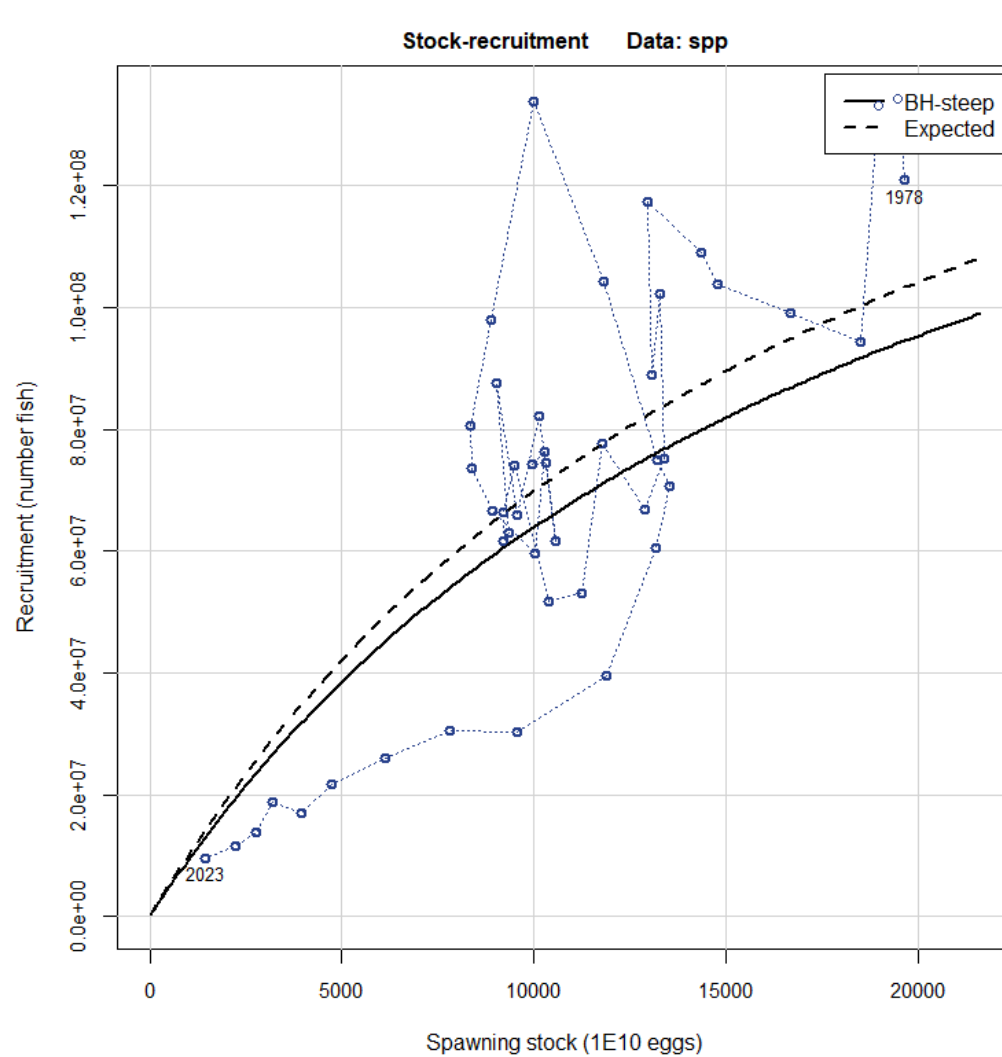
# Background

- SEDAR 76 conducted assessment for Black Sea Bass (BSB) with terminal year 2021
  - Model could not estimate steepness and used SPR proxy for  $F_{MSY}$
  - Stock status: Overfished but not overfishing
- Projections from subsequent analysis did not match continued decline of SERFS index in 2022 and 2023
- SSC requested enhanced projections that incorporate available data
  - Sufficient data available to update the stock assessment and projections

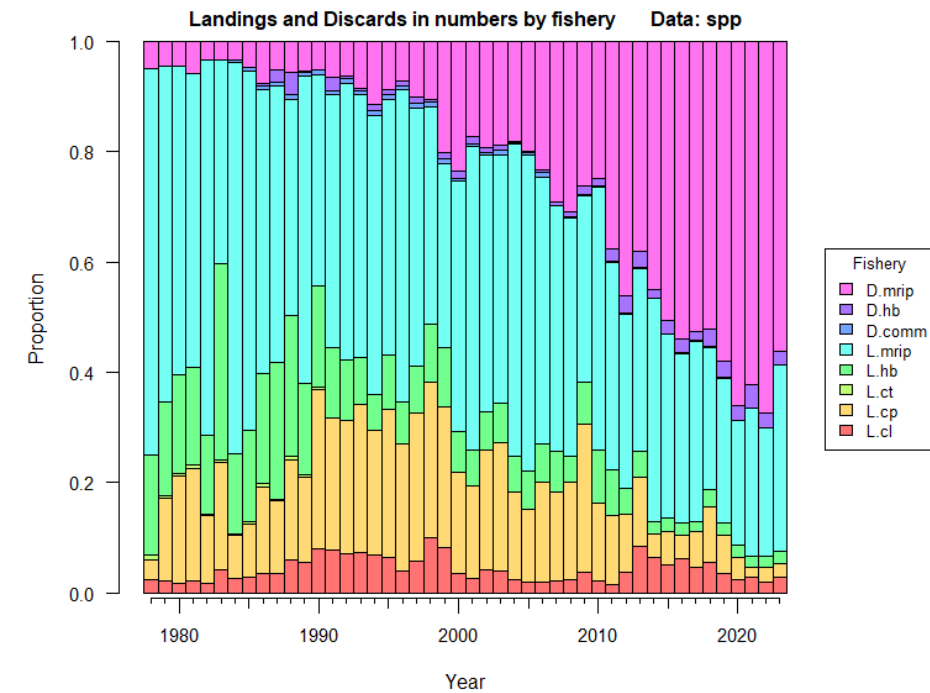
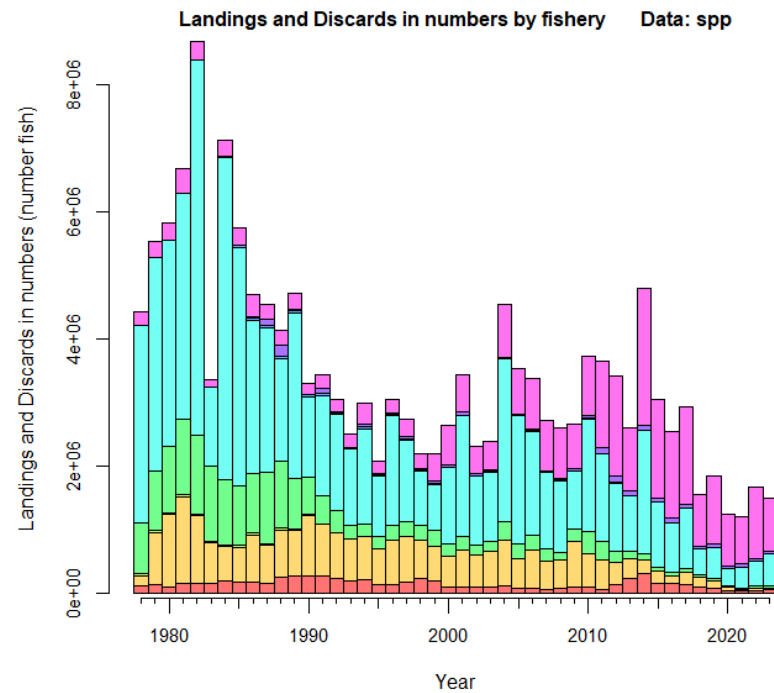
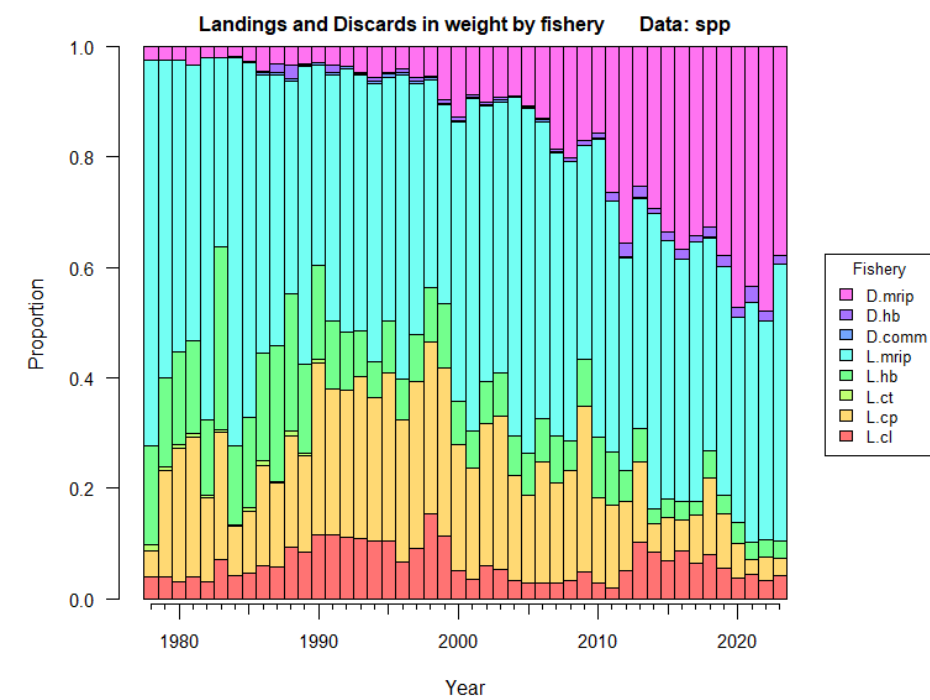
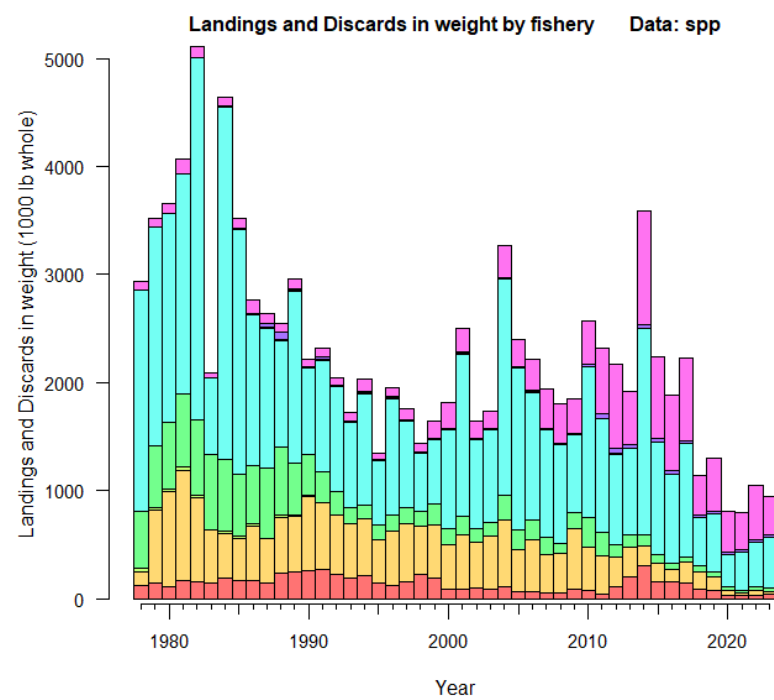
# SEDAR 76 Update changes

- Updated all data through 2023 (terminal year )
- Selectivity change for general recreational and headboat fleets
- Estimated Beverton-Holt (BH) stock recruitment relationship
  - Allows direct estimation of MSY benchmarks
- Recruitment assumptions modified in last few years and in projections to match recent estimates
- MSY benchmarks based on total harvest in weight (landings and discards)

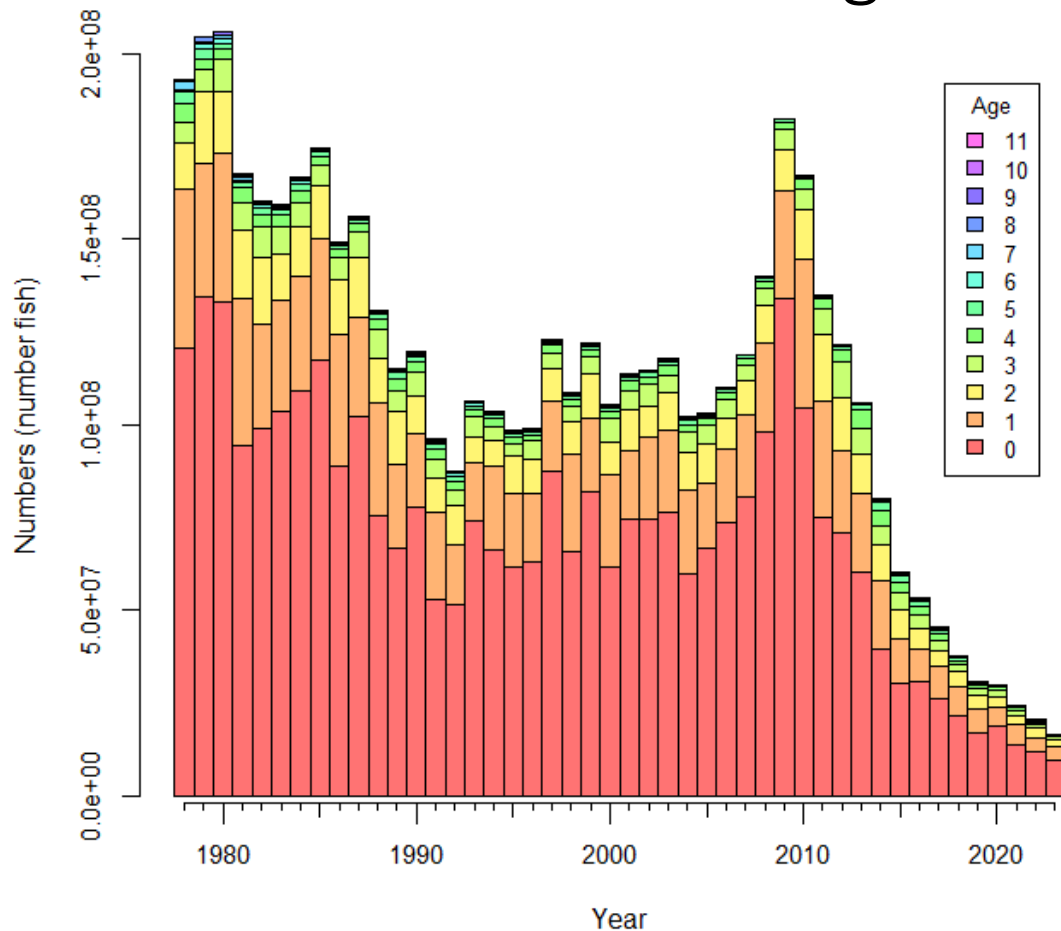
# Beverton-Holt Stock Recruitment Relationship



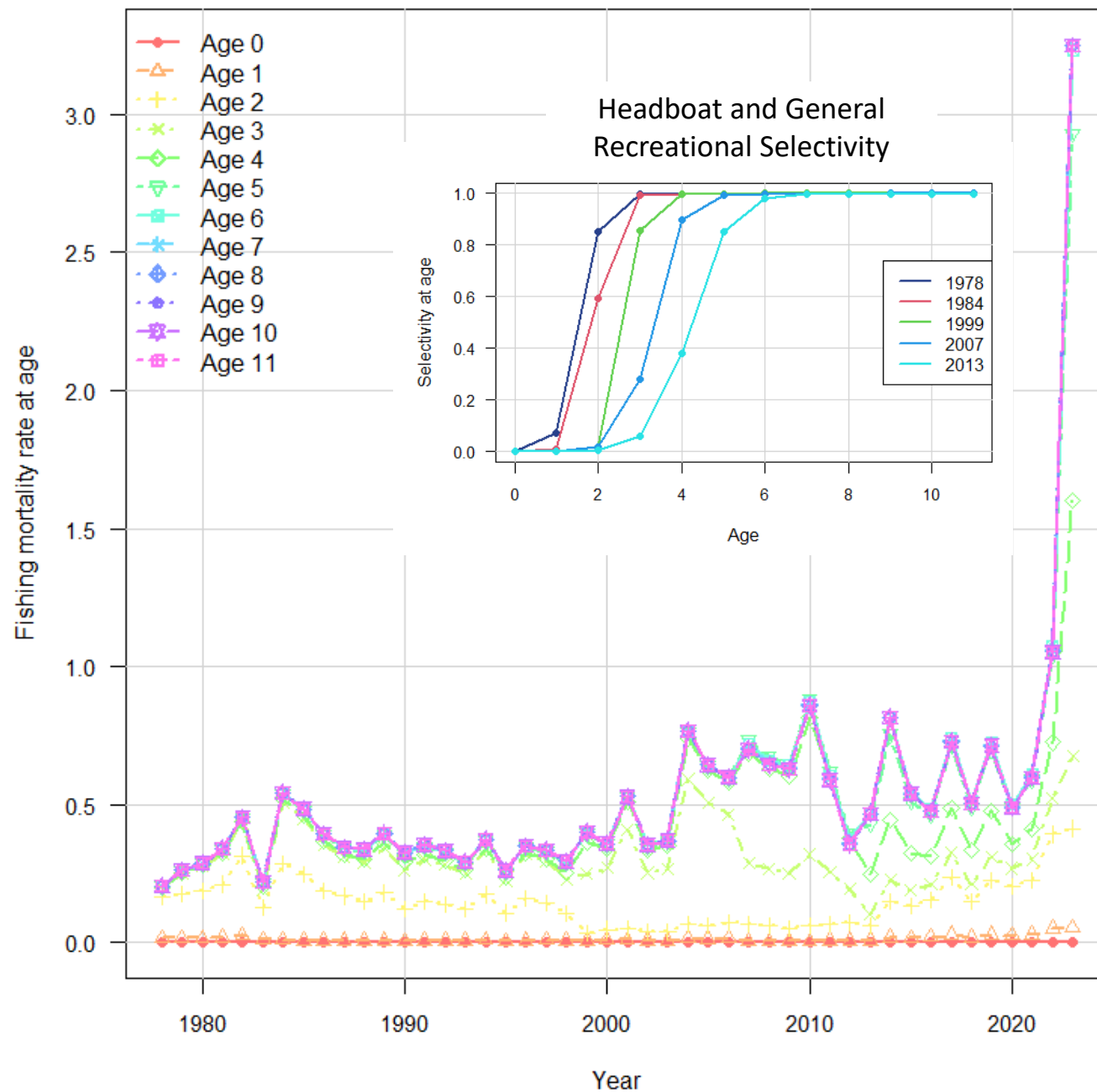
# BAM base model – Estimated Landings and Discard



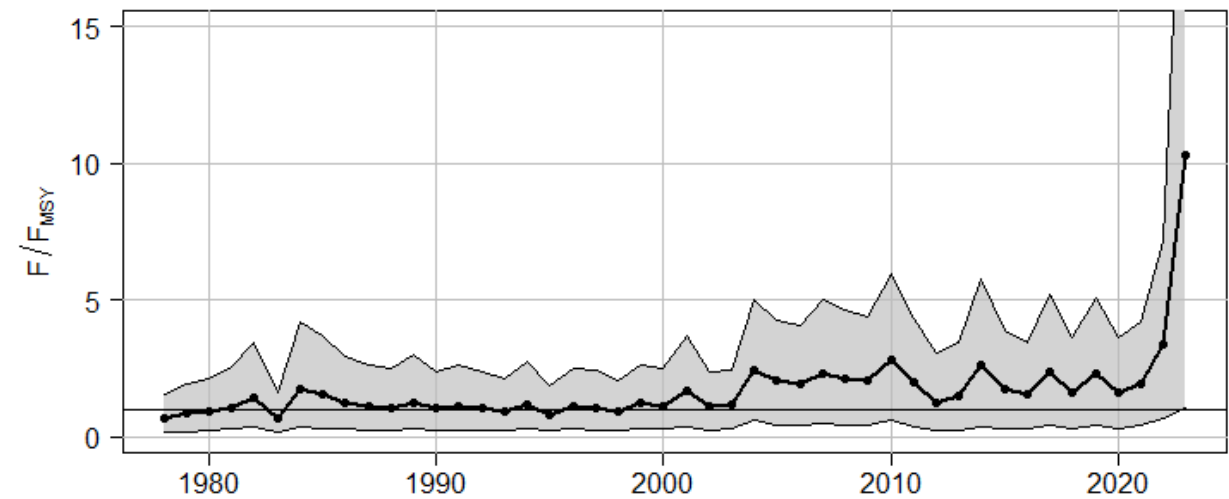
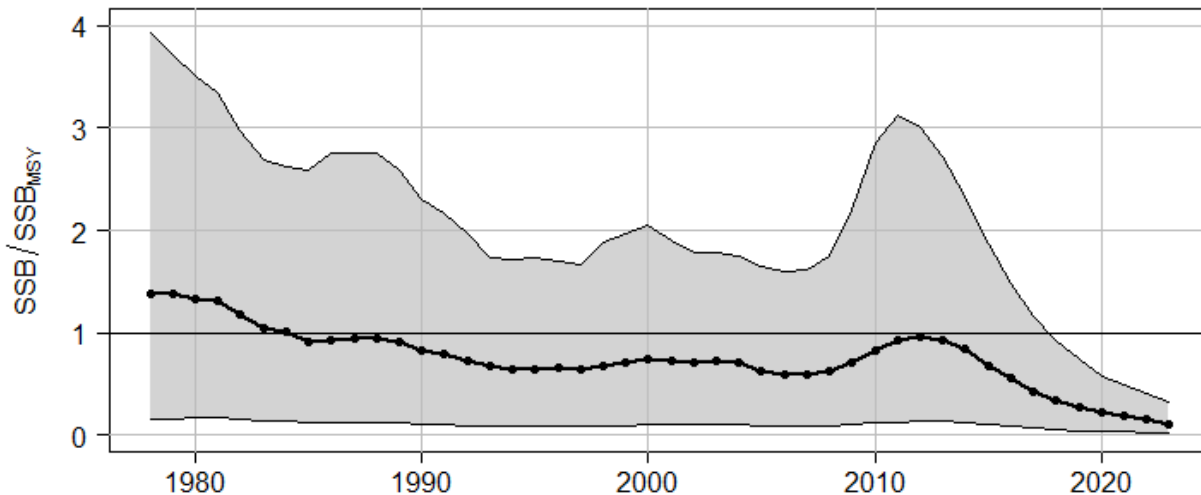
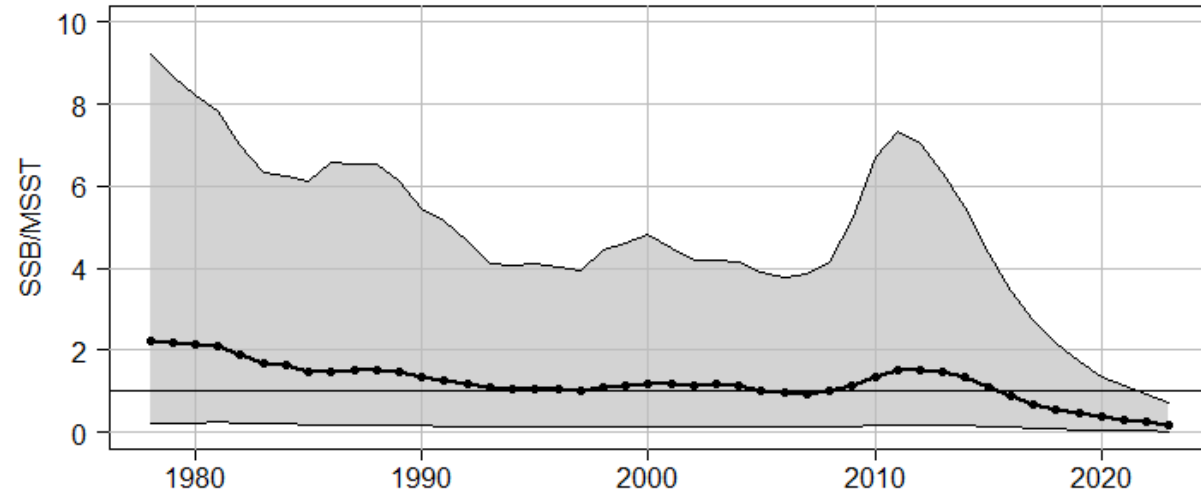
## Abundance At Age



## Fishing mortality at Age



# Stock status



- 99.7% of MCBE models are overfished
- 89.3% of MCBE models are overfishing

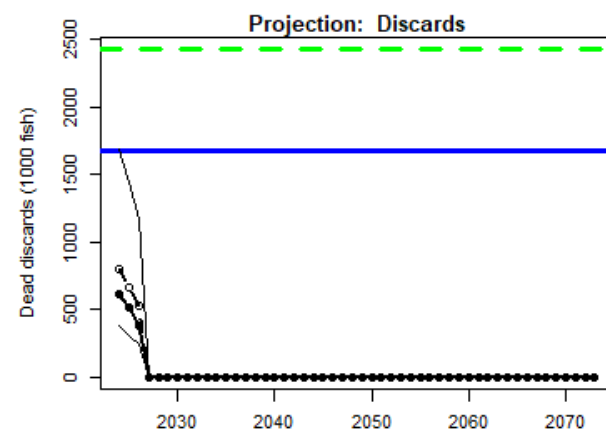
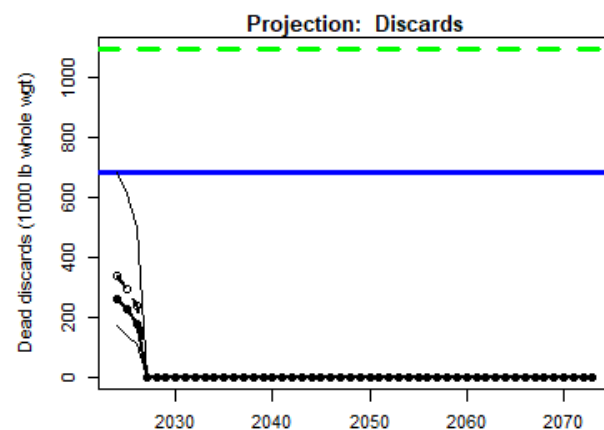
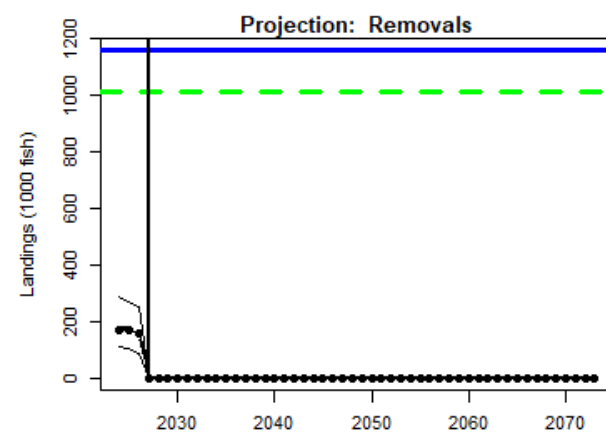
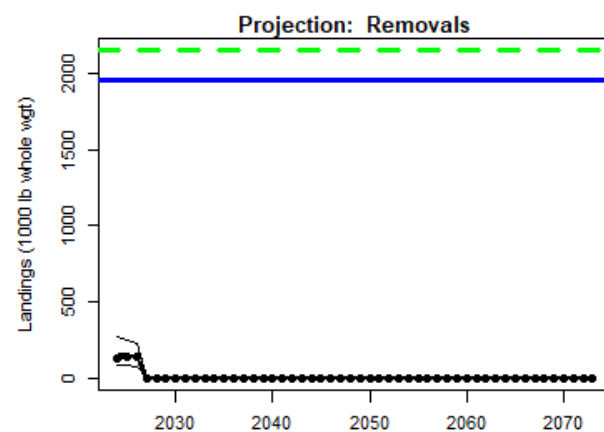
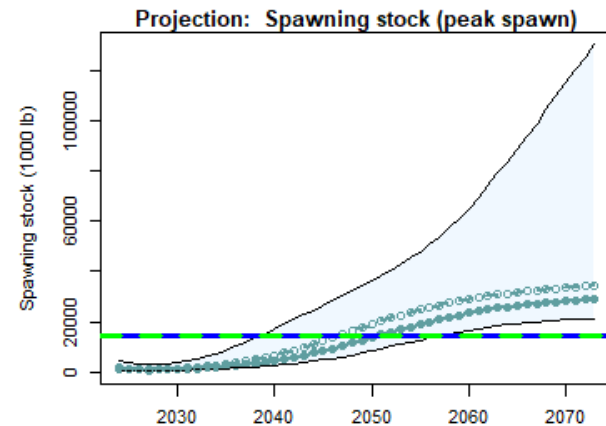
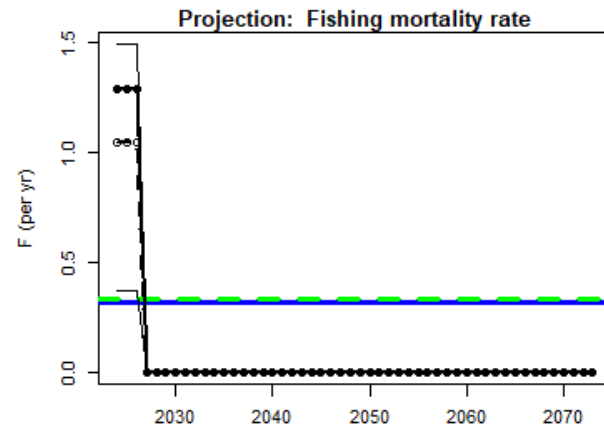
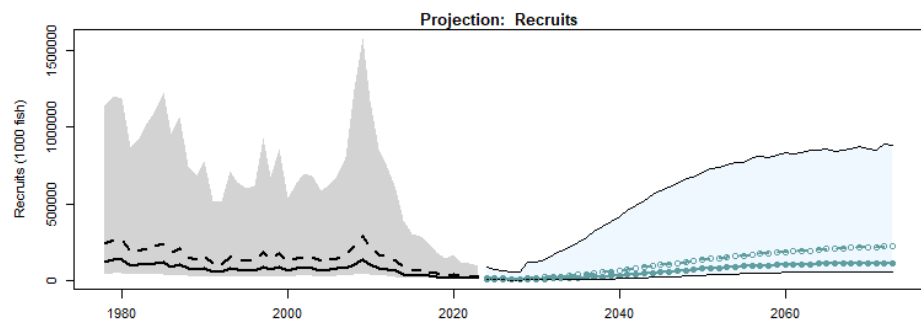
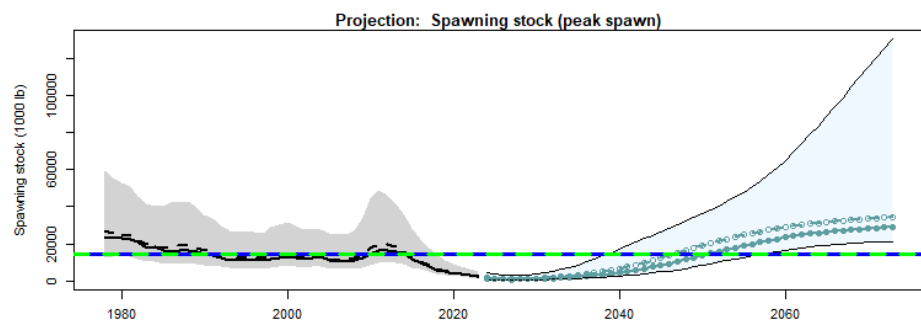
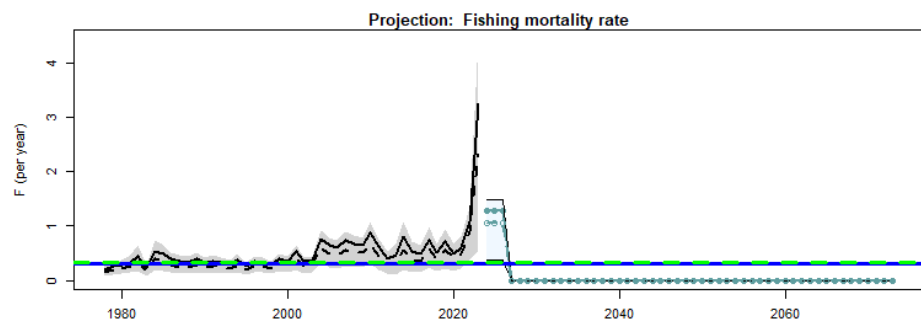
# Projections

- Use BH SRR for recruitment forecasting
- Interim years use average  $F_{2021-2023}$
- Projected Recruitment
  - 2024-2028 assumes BH relationship with recent mean recruitment deviate and stochasticity
  - 2029 and after assume BH with stochasticity
- Present 2 scenarios here
  1. Fishing mortality for landings and discards set to 0
  2.  $F$  for landings set to 0 and  $F$  for discards at current  $F$  rates



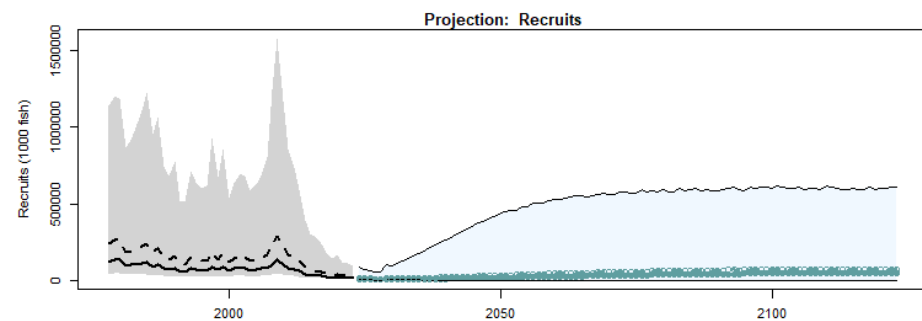
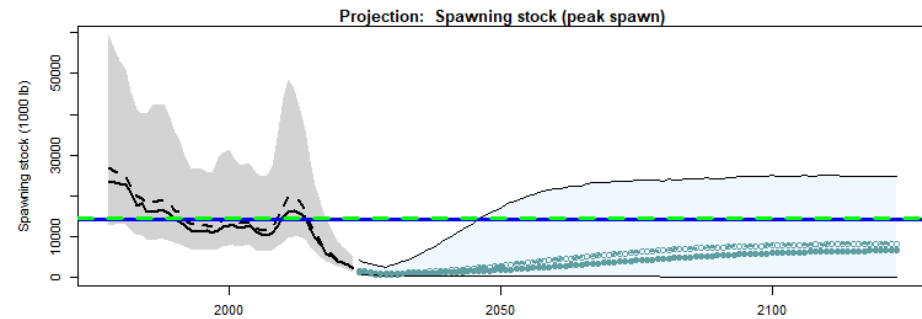
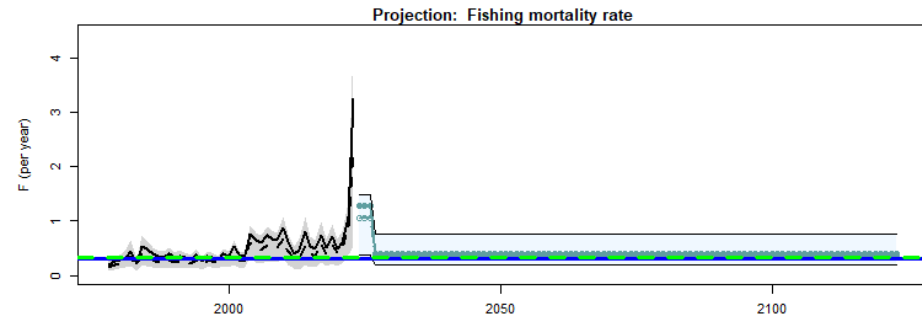
$$F = 0$$

Solid dot & lines = Base model  
Circles & Dashed lines = Median MCBE



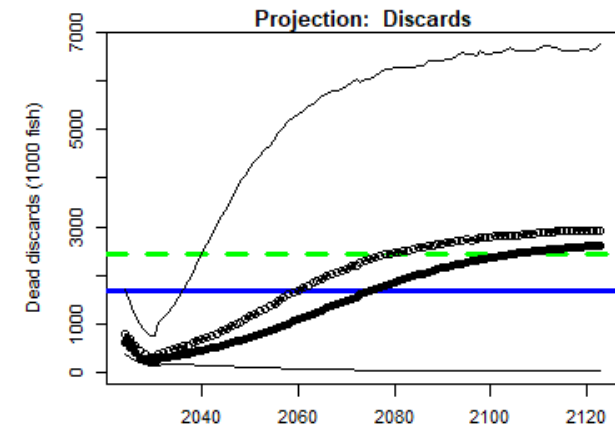
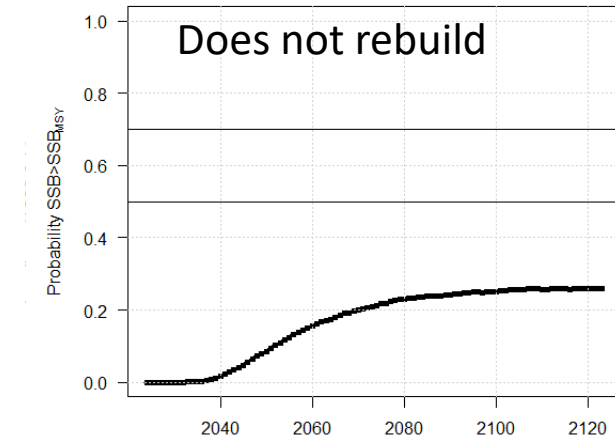
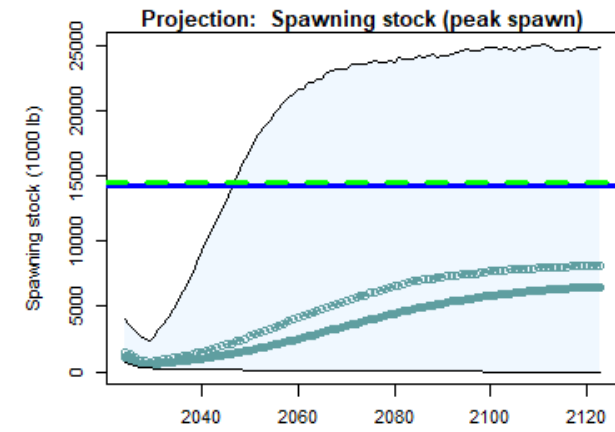
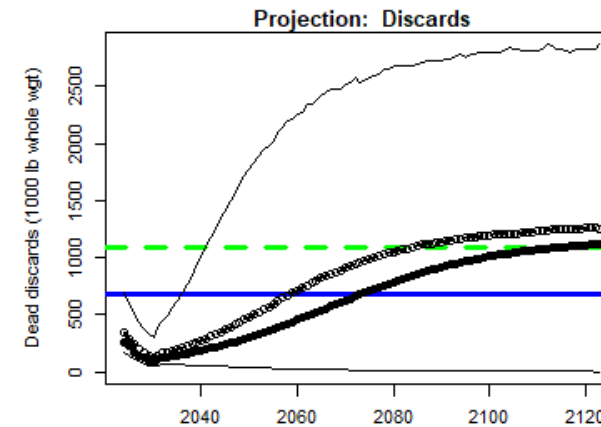
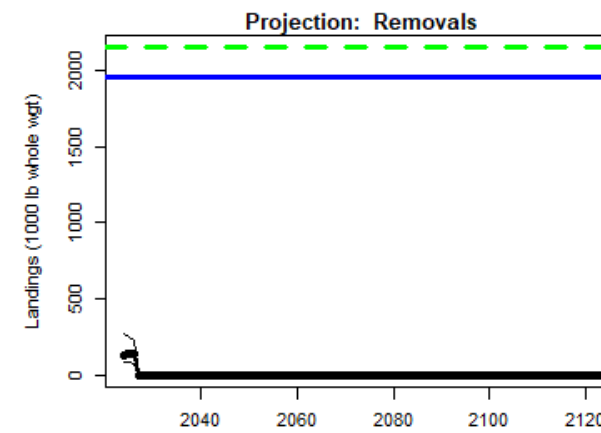
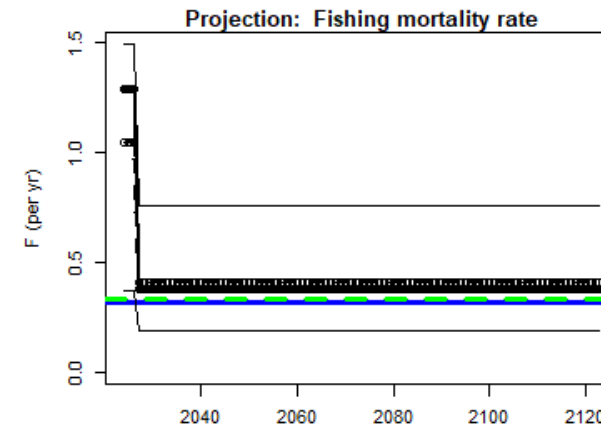
50% probability of rebuilding = 2047

$$F_{\text{Landings}} = 0 \quad F_{\text{Discards}} = F_{\text{current}}$$



Solid dot &  
lines = Base  
model

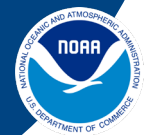
Circles &  
Dashed lines =  
Median MCBE



# Summary of assessment results

- Addition of more years of data and continued decline of stock allowed for estimation of steepness
- SA black seabass is overfished/depleted (99.7% of MCBE runs)
- Overfishing is occurring in terminal years (89.3% of MCBE runs)
- Natural mortality and discard mortality are important sources of uncertainty in this assessment
  - Though stock status is robust to range used in this assessment
- Pattern of low recruitment since 2014
  - Appears to be an increase in mortality across all ages
- Stock does not rebuild with zero landings and continued discarding

# Questions



**NOAA**  
**FISHERIES**