Species:
Red Porgy

Model and Additional Data Years:

- Prior Assessment: SEDAR60 Red Porgy Standard Assessment
- Prior Terminal Year: 2017
- Data providers should provide all new and recent available data sufficient for use in the stock assessment through 2024. Data providers may decide to include preliminary or partial for more recent years that could be used in the stock assessment models or projection analyses. Data inclusion for the stock assessment models and projection analyses will be determined by the lead analyst based on quantity and quality of the most recent data
- Apply the current BAM configuration.

Requested Data Updates (Please be as specific as possible):

- Review any new and updated information to determine if it warrants consideration for modifying existing assumptions to life history, discard mortality, and steepness.

Potential Modifications to previously approved assessment (Please be as specific as possible):

- Incorporate catch level working group recommendations.

Is a Topical Working Group Needed? No

POTENTIAL SCHEDULE:

- Cooperators use their process to develop SoWs
- SSC reviews SoWs at April meeting, then SAFMC reviews in September, 2022
- Initial Cooperator-approved SoWs submitted to SEFSC by November 1, 2022
- SEFSC provides feedback to Cooperators via memo no later than February 1, 2023
- Cooperators/Technical review bodies review feedback and negotiate final SoWs with SEFSC
- Final SoWs provided to SEDAR Program Manager by May 1, 2023
- Assessment Species are approved at Spring SEDAR Steering Committee Meeting, May 2023.
- Terms of Reference to SSC in October, 2023 and SAFMC in March, 2024
- Assessment reviewed by SSC and SAFMC in late 2025/early 2026

Species:
Gag Grouper

Model and Additional Data Years:

- Prior Assessment: SEDAR 71 Gag Operational Assessment
- Prior Terminal Year: 2019
- Data providers should provide all new and recent available data sufficient for use in the stock assessment through 2024. Data providers may decide to include preliminary or partial for more recent years that could be used in the stock assessment models or projection analyses. Data inclusion for the stock assessment models and projection analyses will be determined by the lead analyst based on quantity and quality of the most recent data.
- Apply the current BAM configuration.

Requested Data Updates (Please be as specific as possible):
Review any new and updated information to determine if it warrants consideration for modifying existing assumptions to life history, discard mortality, and steepness.

Potential Modifications to previously approved assessment (Please be as specific as possible):

- Incorporate length composition from the video survey, as feasible.
- Incorporate catch level working group recommendations.

Is a Topical Working Group Needed? Yes

- Low recruitment: The Center recommends a SEDAR Procedural Workshop (PW) be conducted in 2024 to examine the potential sources of recent recruitment declines in several reef fish species in the South Atlantic, including: gag, scamp, and red porgy. The Center will work with the Council to draft appropriate terms of reference for that PW.
- Reproductive Dynamics: A TWG is recommended if sufficient information is made available to better characterize the reproductive dynamics of gag (e.g. sex ratio, maturity schedule, batch fecundity, spawning seasonality, and spawning frequency, sperm limitation).

Suggested Topical Working Group Process:
Webinar

POTENTIAL SCHEDULE:

- Cooperators use their process to develop SoWs
- SSC reviews SoWs at April meeting, then SAFMC reviews in September, 2022
- Initial Cooperator-approved SoWs submitted to SEFSC by November 1, 2022
- SEFSC provides feedback to Cooperators via memo no later than February 1, 2023
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- Terms of Reference to SSC in October, 2023 and SAFMC in March, 2024
- Assessment reviewed by SSC and SAFMC in late 2025/early 2026

Species:
King Mackerel

Model and Additional Data Years:

- Prior Assessment: SEDAR 38U King Mackerel Update Assessment
- Prior Terminal Year: 2017/2018 FY
- Data providers should provide all new and recent available data sufficient for use in the stock assessment through 2023/2024 FY. Data providers may decide to include preliminary or partial for more recent years that could be used in the stock assessment models or projection analyses. Data inclusion for the stock assessment models and projection analyses will be determined by the lead analyst based on quantity and quality of the most recent data.
- Apply the current SS3 configuration.

Requested Data Updates (Please be as specific as possible):

- Review any new and updated information to determine if it warrants consideration for modifying existing assumptions to life history, discard mortality, and steepness.

Potential Modifications to previously approved assessment (Please be as specific as possible):

  - Provide a means to model projected discards in a manner that relaxes the assumption that discards would increase/decrease in proportion to changes in the landings.
  - Explore alternative age references, or age-specific time series for the SEAMAP fishery independent survey.
  - Explore model sensitivity to the exclusion of sub-legal fish observations. Explore assumptions regarding the size/age of discards and bycatch.
  - Evaluate model sensitivity to the age-data and explore alternative parameterizations (such as inverse age-length key).
  - Explore cause of high max gradient for the model. Describe the cause and implement improvements feasible.
  - As feasible, explore the possibility to include a sensitivity run with FISHStory length data (1950s-1970s)
  - Incorporate catch level working group recommendations

Is a Topical Working Group Needed? No

POTENTIAL SCHEDULE:

- Cooperators use their process to develop SoWs
- SSC reviews SoWs at April meeting, then SAFMC reviews in September, 2022
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Appendix: Additional and Future Research Recommendations that may not be addressed in 2025 Operational Assessments

Research Recommendations for future Gag Assessments:

- Implement systematic age sampling for the general recreational and commercial sectors. Age samples were important for this assessment for identifying strong year classes, but sample sizes were limited, particularly for the general recreational sector, which accounts for the majority of the recent landings.
- Age-dependent natural mortality was estimated by indirect methods (Lorenzen) for this assessment. Telemetry- and conventional-tagging programs can provide alternative estimates of natural mortality.

Research recommendation for future Red Porgy Assessment:

- Impacts of climate change on winter spawners
- Investigate potential factors that may be contributing to the continued low recruitment of Red Porgy, including egg production, egg quality, fertilization rate, juvenile survival, sex ratio, and size/age of sex transition
- Investigate whether Red Porgy males establish and maintain territories as part of their spawning behavior (although territorial behavior has not previously been observed, the SSC deemed the question worthy of further investigation).
- Investigate the potential impact(s) on Red Porgy of increased abundance of Red Lionfish and Red Snapper (or other piscivores found to have recent increased abundance) in the South Atlantic, including:
    - Predation of juvenile Red Porgy by Red Lionfish and Red Snapper and its potential impact on the apparent recruitment failure of Red Porgy
    - Competition for prey between Red Snapper and Red Porgy (e.g., diet composition and size range overlaps)
    - Exploring to what extent the resurgence in the Red Snapper South Atlantic population co-occurred with the decline in the South Atlantic Red Porgy population
- Investigate temporal trends in growth, sex at age, and female maturity at age. In the previous assessments, female maturity at age was estimated for several time blocks and included in the model as a time-varying relationship. During the current assessment process, the basis for modeling only female maturity as time-varying was called into question, given that life history parameters are often linked. The decision was made to use only a single female maturity at age relationship. However, the panel judged this to be an important area of future research.