

**Species:**

King Mackerel

**Model and Additional Data Years:**

- Prior Assessment: SEDAR 38U King Mackerel Update Assessment
- Prior Terminal Year: 2017/2018 FY
- OA Terminal Year: 2024, adding 6 years of new data
- Apply the current SS3 configuration.

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

- Include any new and updated information on life history, discard mortality, and steepness.
- Explore using appropriate CVs for the landings data to capture the uncertainty in the model results.

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

- Research aimed at improving the documentation of data series formatting, including index standardization, for SS3 would improve modeling efficiency. This includes statistical coding for consistent database querying and data processing.
- An evaluation of alternative age references, or age-specific time series, for the SEAMAP fishery independent survey was recommended by the data providers and noted by the analyst for future assessments.
- An analysis of the effect of excluding sublegal fish size observations on the assessment should be undertaken. Information on the age composition of discarded fish from all fleets is needed to validate the assumption of exclusively age-0 discards. The conditional age-at-length data had a significant influence on recent recruitment estimates.
- Evaluate model sensitivity to the age-data and explore alternative parameterizations (such as inverse age-length key), as the fleet coverage was suboptimal with zero information available for several fleets and years.
- Explore cause of high max gradient for the model
  - Examine correlation among parameters in the .eva file and identify where smallest and largest eigenvalue is above 1 million.
  - Examine growth parameters as a potential cause
  - Describe the potential impact of cause identified for the high max gradient
- Run a sensitivity with FISHStory length data (1950s-1970s)
- Include abundance and catch time series to inform projection timeframes
  - Autocorrelation and partial autocorrelation functions
- Catch level projection working group topics

**Is a Topical Working Group Needed?** Yes or No

**If Yes, Topical Working Group Topics:**

- Topic 1:
- Topic 2:

**Suggested Topical Working Group Process:**

*Is an in-person workshop requested for the Topical Working Group, or can it meet via 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
- 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
- Data scoping workshop meet 2025
- Topical working groups (if necessary) meet 2025
- Assessment reviewed by SSC and SAFMC in late 2025/early 2026