North Pacific albacore stock assessment

International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC)

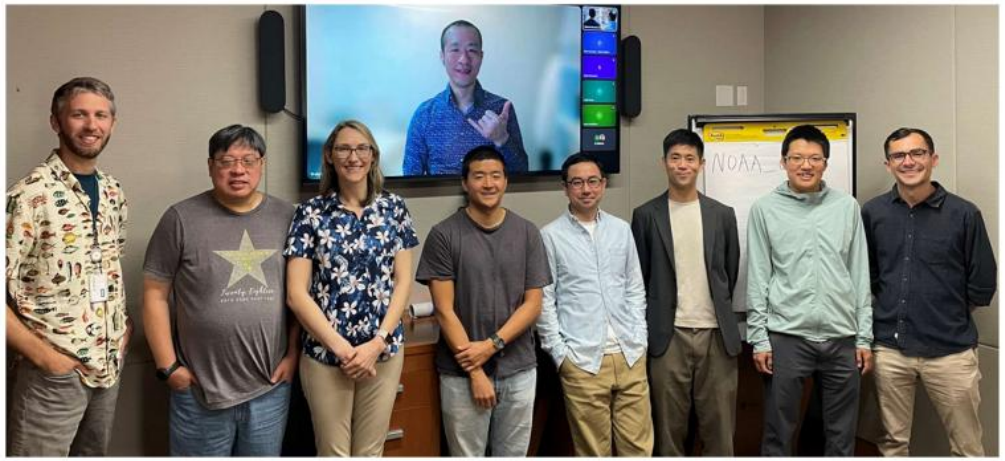
Albacore Working Group

WCPFC NC Meeting

July 2026

Acknowledgements

- Conducted by the ISC ALBWG
- 3-year cycle (Last benchmark assessment in 2023)
- Updated 2026 benchmark assessment was reviewed by the ISC Plenary in June 2026 and accepted as best available science



WG Members:

- S. Hawkshaw (WG chair); N. Matsubara (WG vice chair); Y.-J. Chang (Chinese Taipei); H. Ijima + Y. Aoki (Japan); S. Teo + P. Kuriyama (USA); H. Xu (IATTC)

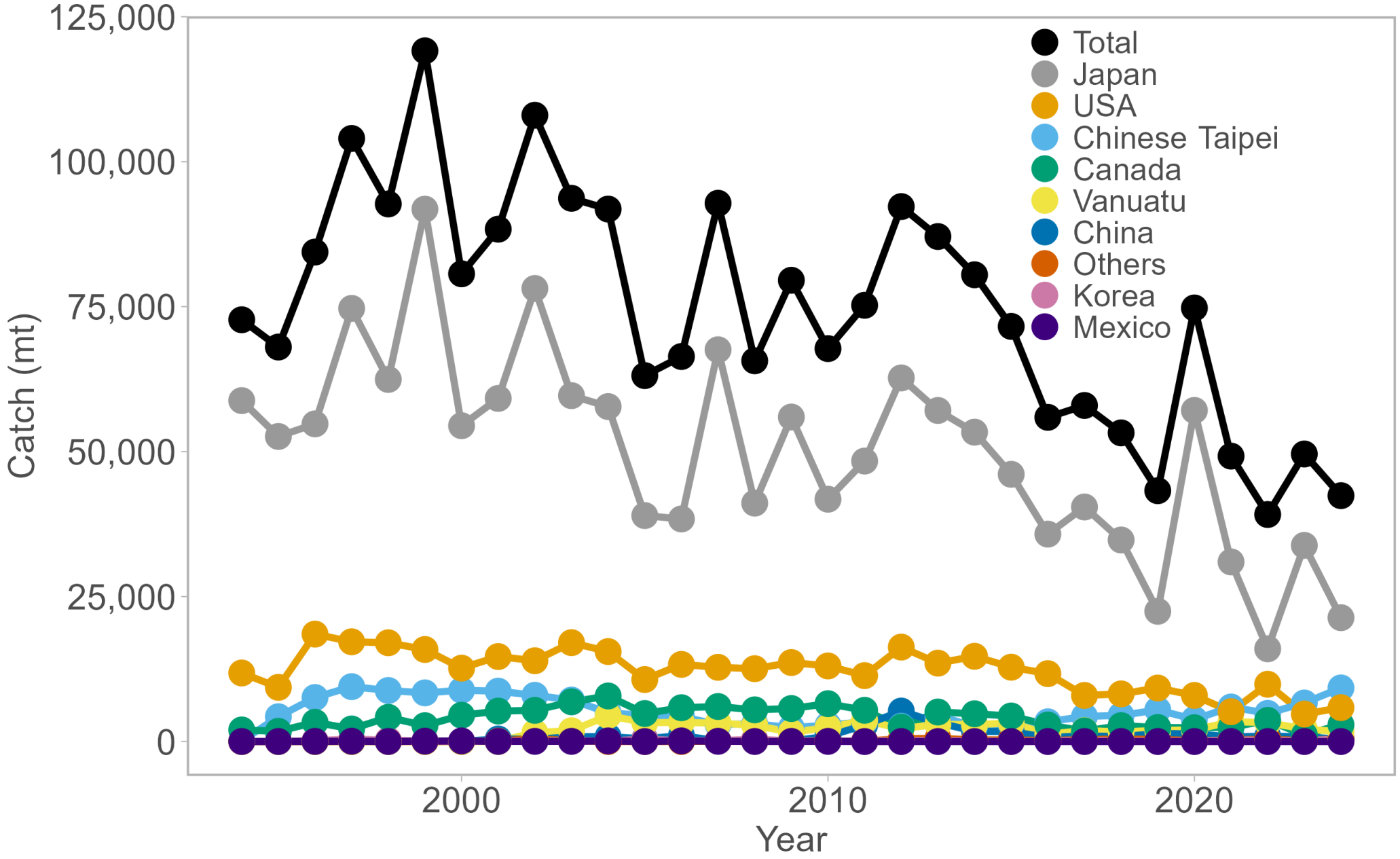
2026 Stock Status

1. The stock is virtually certain (>99% probability) not to be overfished relative to the threshold (30%$SSB_{current,F=0}$) and limit (14%$SSB_{current,F=0}$) reference points adopted by the WCPFC and IATTC
2. The stock is virtually certain (>99% probability) to not be experiencing overfishing relative to the target reference point ($F45_{\%SPR}$)

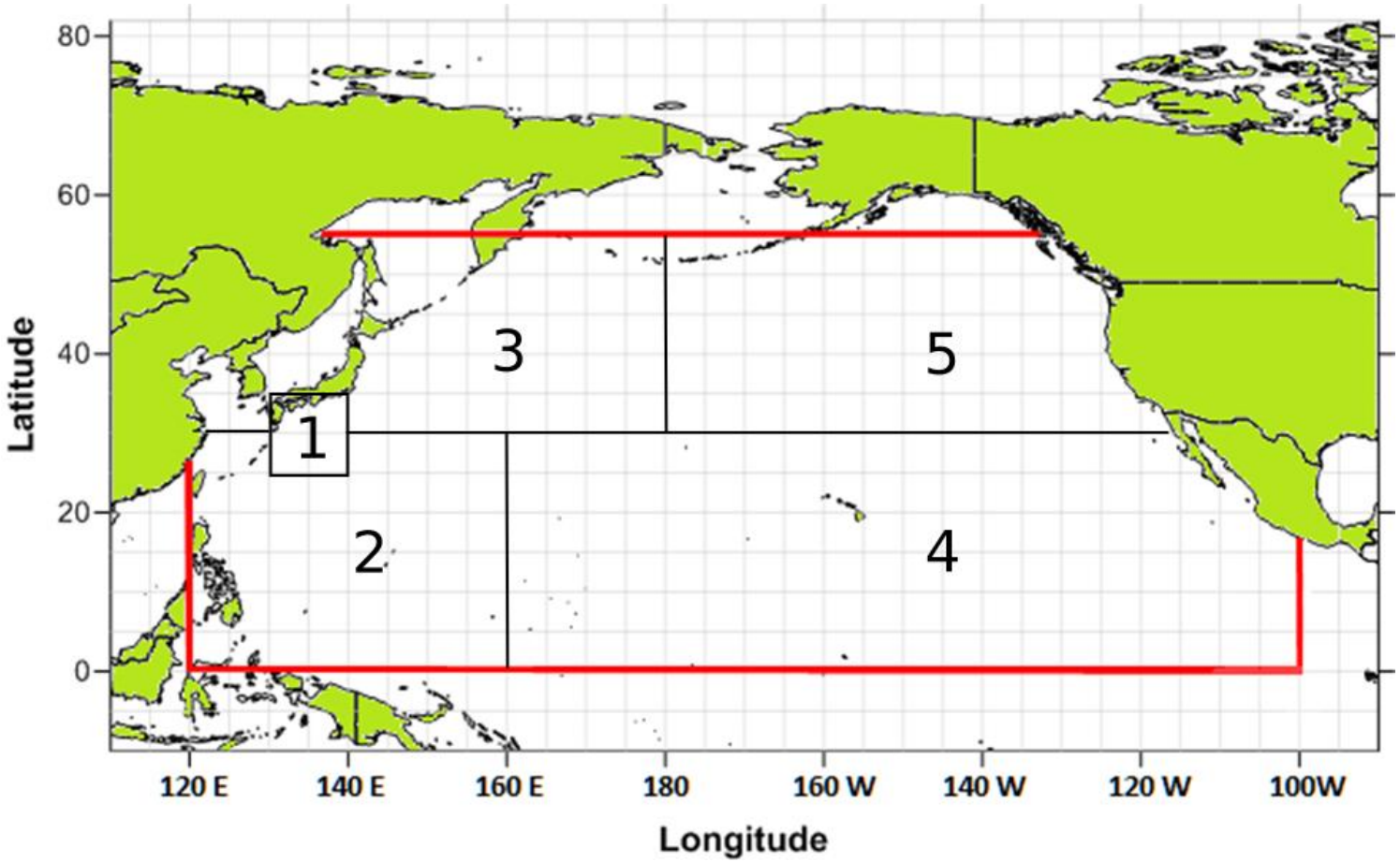
2026 Conservation Information

1. If fishing intensity over the next 10 years is maintained at the current fishing intensity (F2021-2023), then female SSB is expected to increase to around 83% of $SSB_{current,F=0}$ (109,384 t) by 2034, with a 100.0% probability that female SSB will remain above the 14%$SSB_{current,F=0}$ LRP for all 10 years and the harvest strategy management objectives of the IATTC and WCPFC (IATTC Resolution C-23-02; WCPFC Harvest Strategy 2023-01) will likely be met; and
2. If fishing intensity over the next 10 years is similar to the 2005 – 2019 period, then female SSB is expected to decrease to around 52% of SSBcurrent,F=0 (67,340 t), with a 99.1 % probability that female SSB will remain above the 14%SSBcurrent,F=0 LRP for all 10 years and the harvest strategy management objectives of the IATTC and WCPFC (IATTC Resolution C-23-02; WCPFC Harvest Strategy 2023-01) will likely be met.

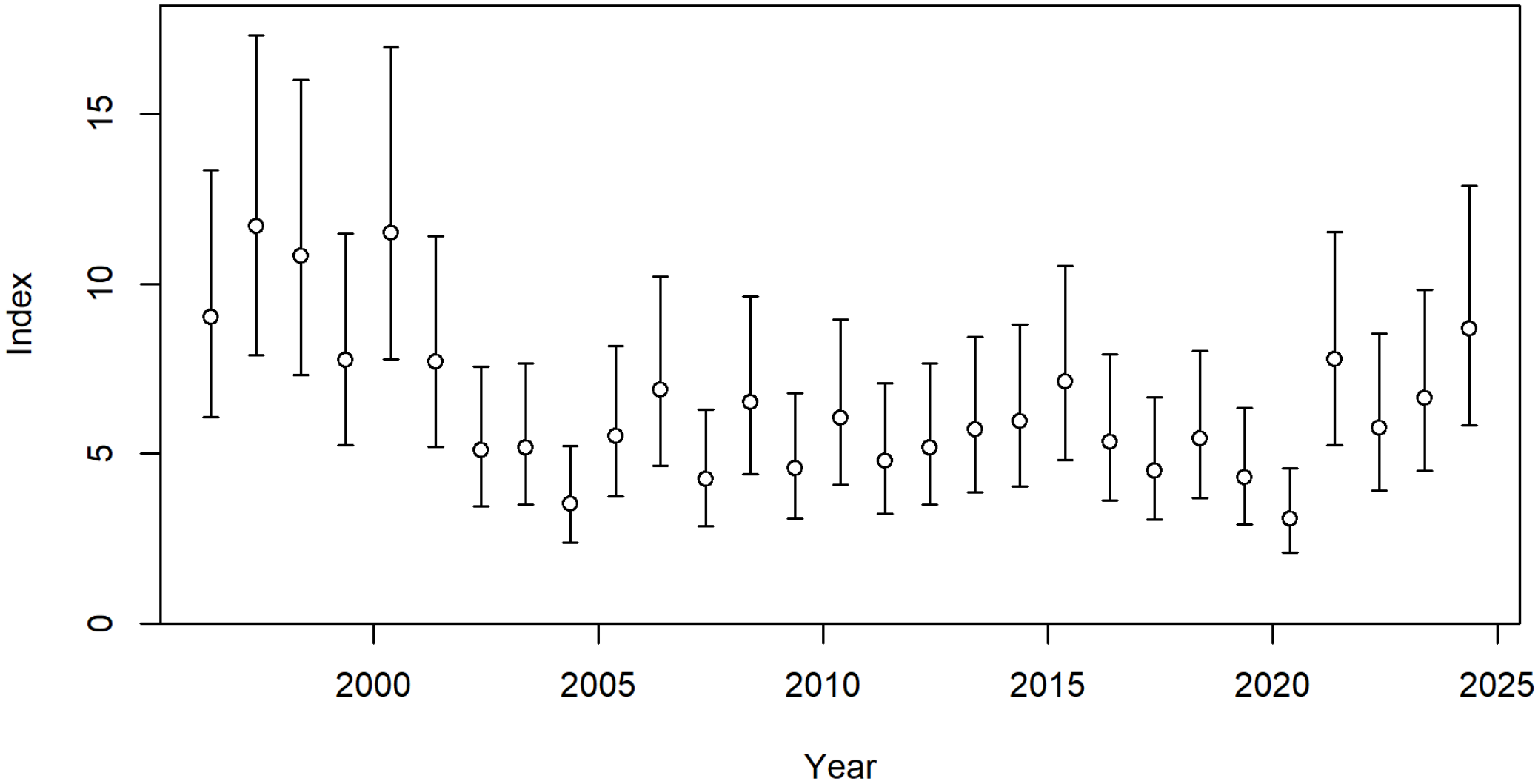
Updated catch data



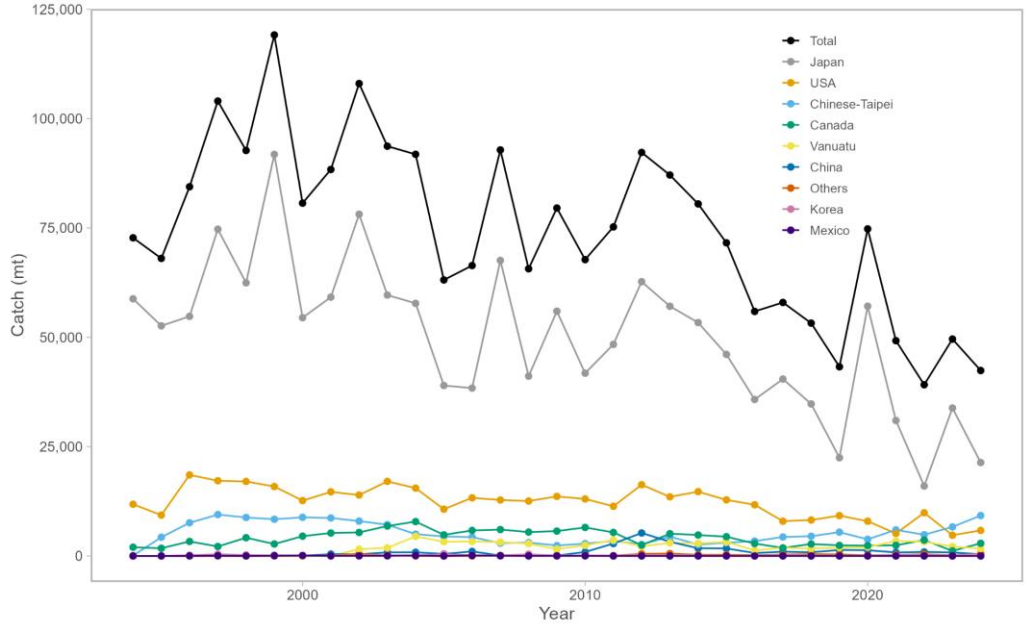
Index of abundance (Japan longline, April – June, Area 2)

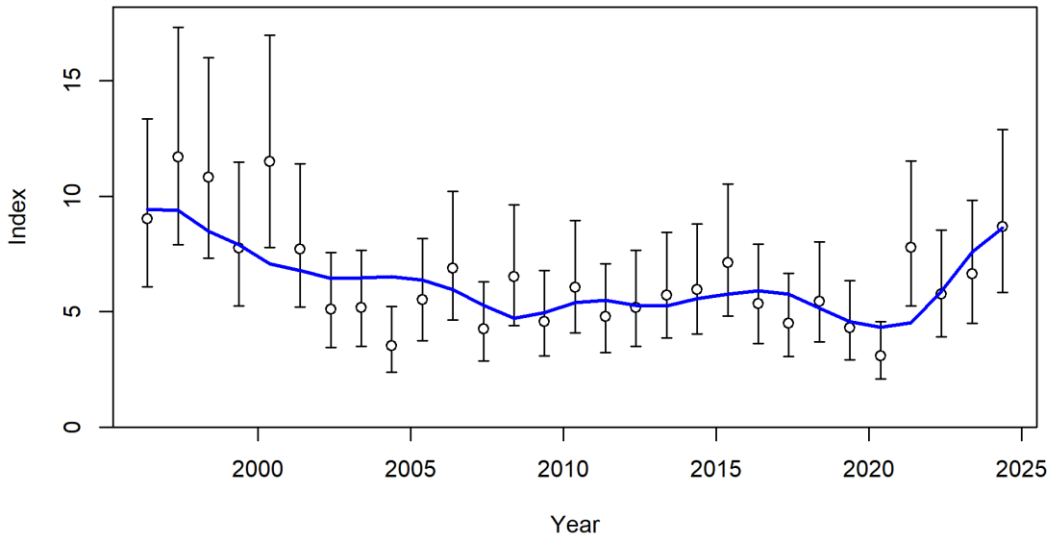


Index of abundance (Japan longline, April-June, Area 2)

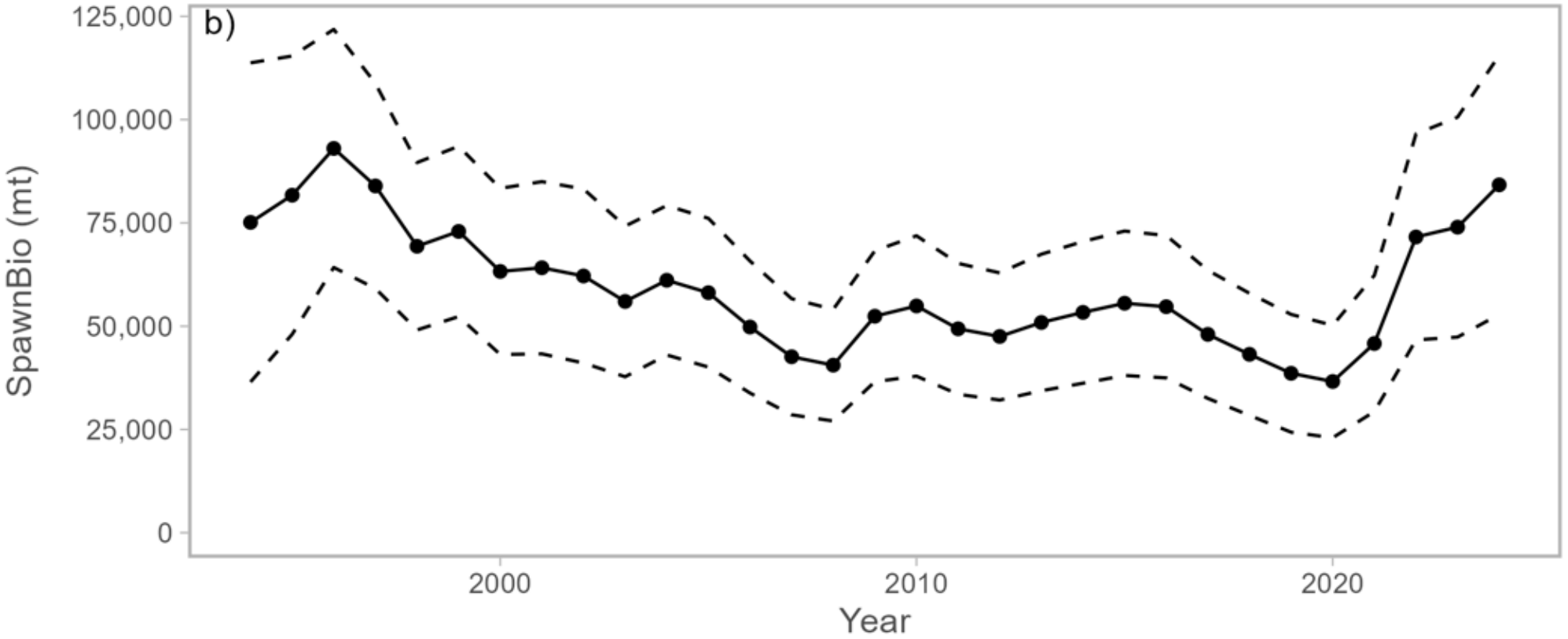


Catch decreasing, index increasing



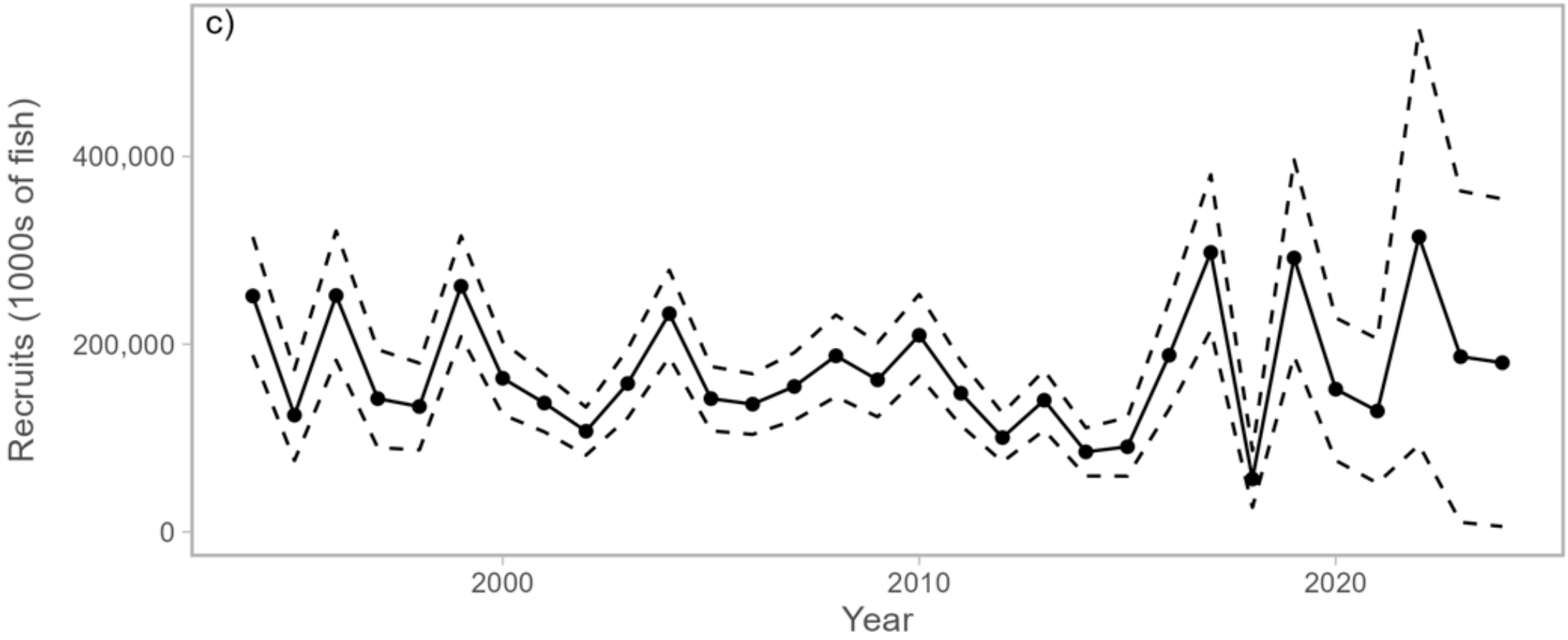


Estimated female spawning stock biomass (mt)



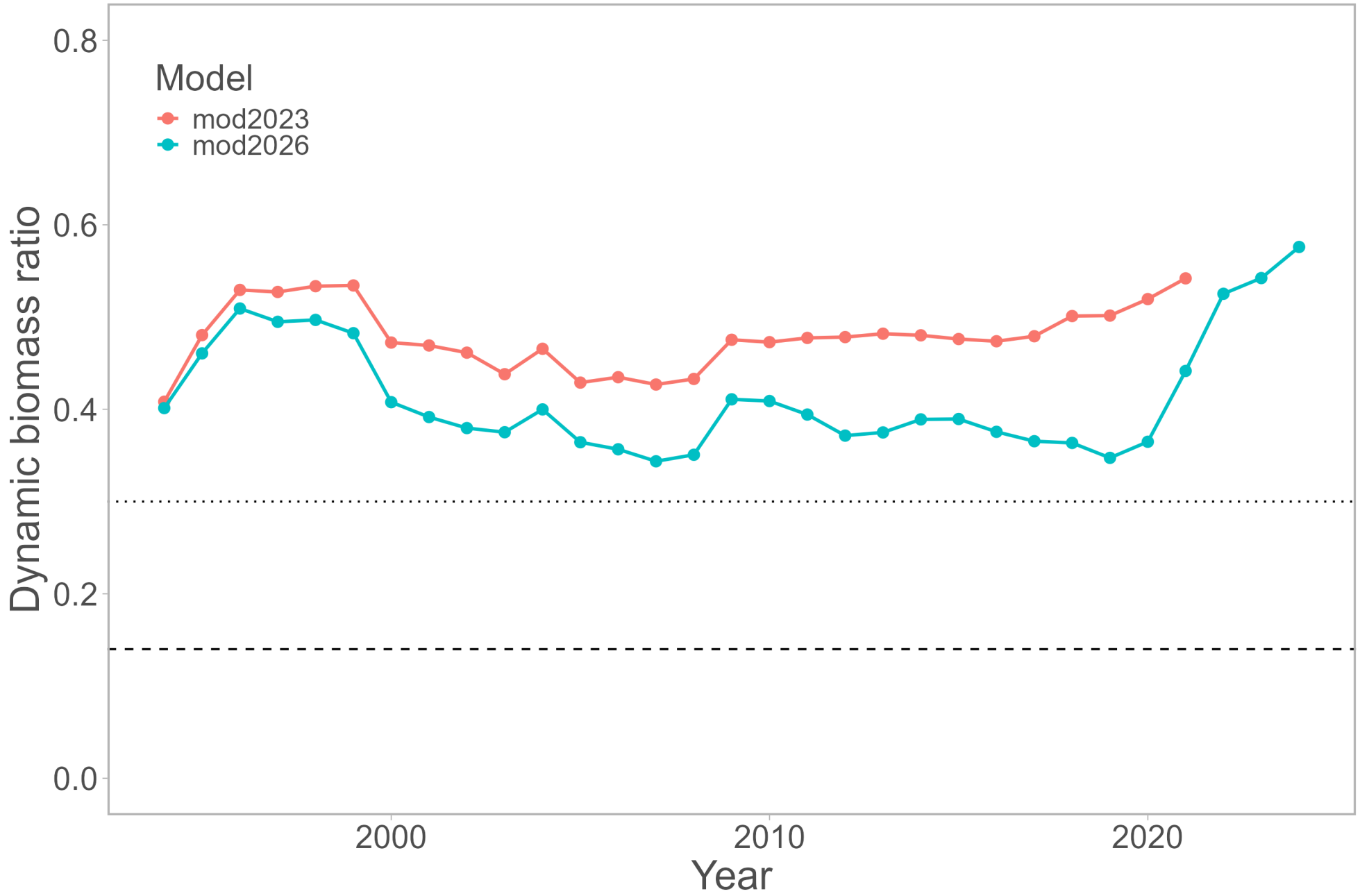
- Increase in early years, followed by relative decline, then somewhat constant, increasing since 2020
- Higher uncertainty at beginning and end of model time period
- Recent increase seen in other data sets (Small-scale longline of Chinese-Taipei and Japan longline indices of abundance)

Estimated recruitment (1000s fish)



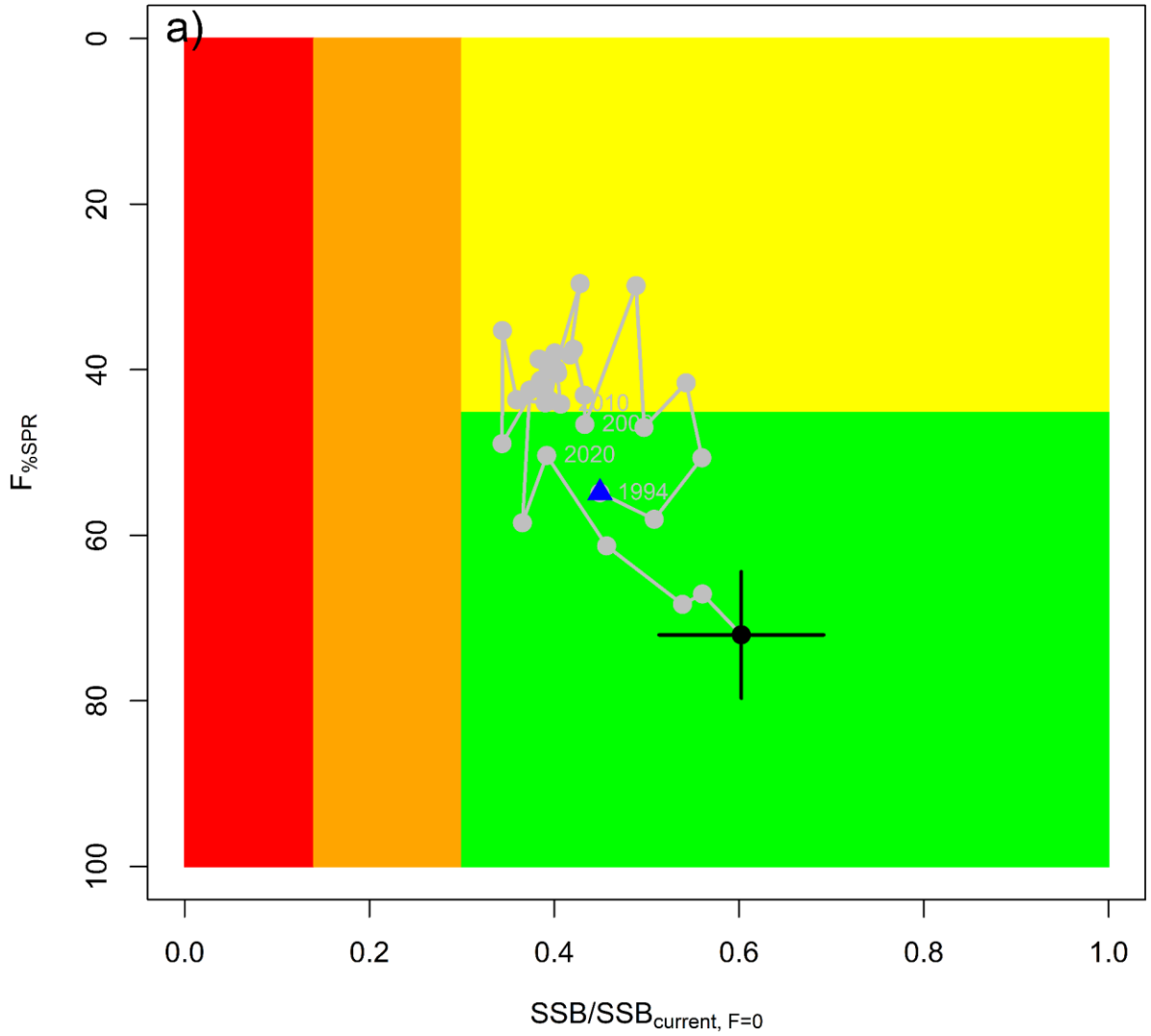
- Strong recruitment estimated in 2017, 2019, and 2022
- Higher uncertainty at end of model time period

Comparison between 2023 and 2026 models



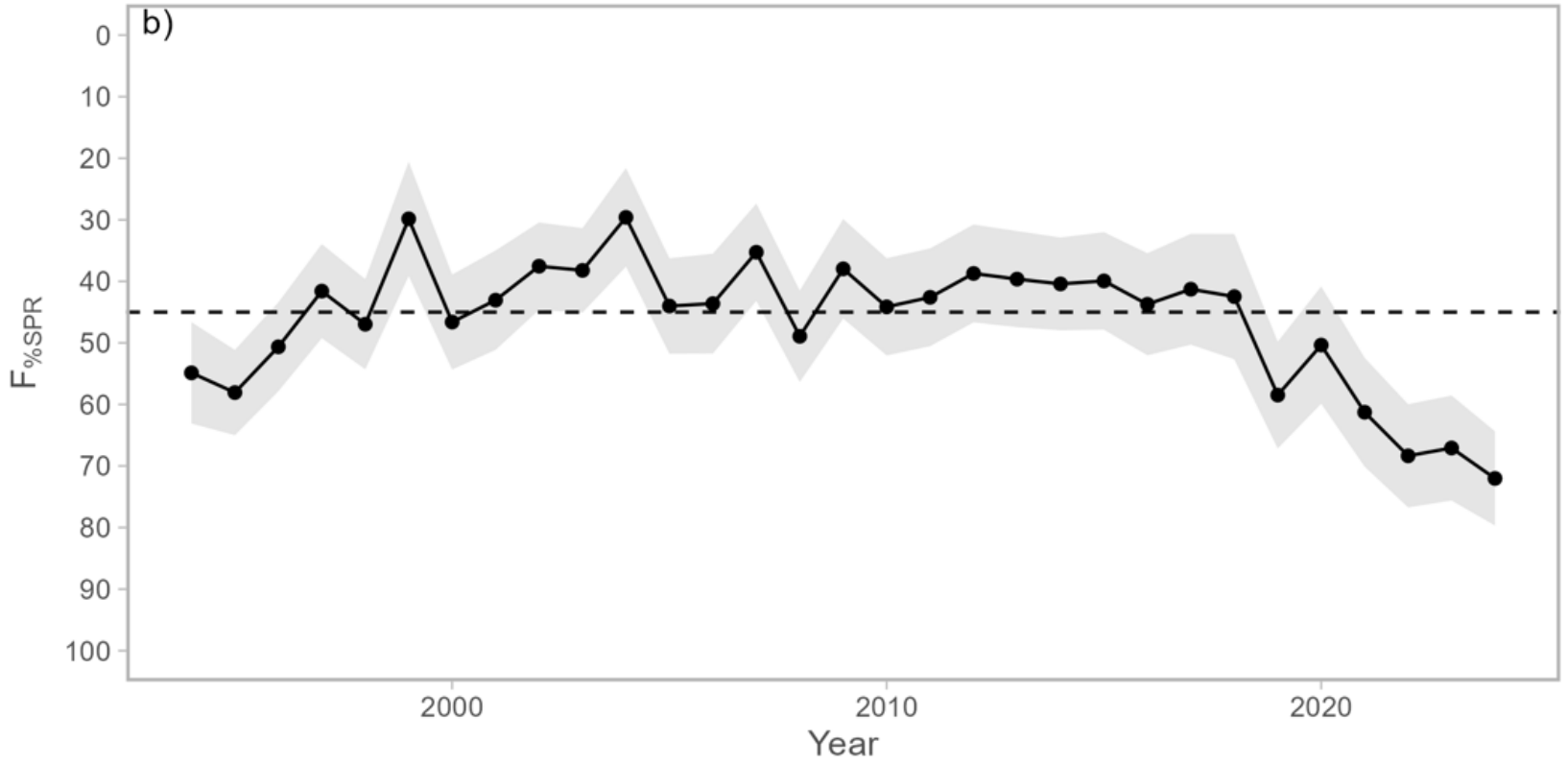
Stock status estimates

- Fishing intensity
  - Target: F45% (yellow)
- Biomass
  - Threshold: 30% $SSB_{current, F=0}$ (orange)
  - Limit: 14% $SSB_{current, F=0}$ (red)
- Acceptable levels of risk
  - <20% risk



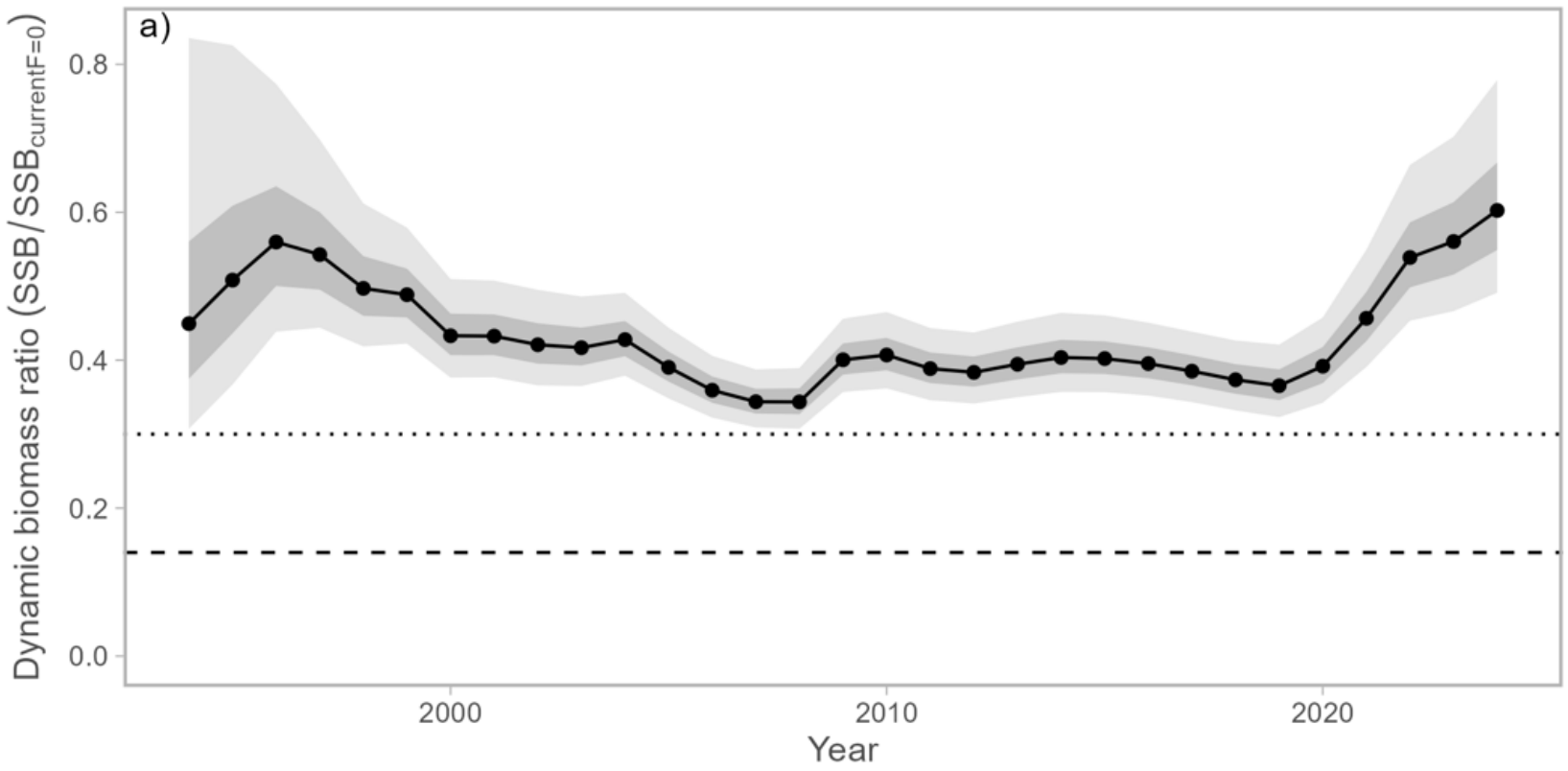
Estimated fishing intensity relative to target

- $F45_{\%SPR}$ target (dashed line)
- 1999-2018: most years above target
- 2019-2024: below target
- Population scale (R_0) estimate lower than in 2023 assessment

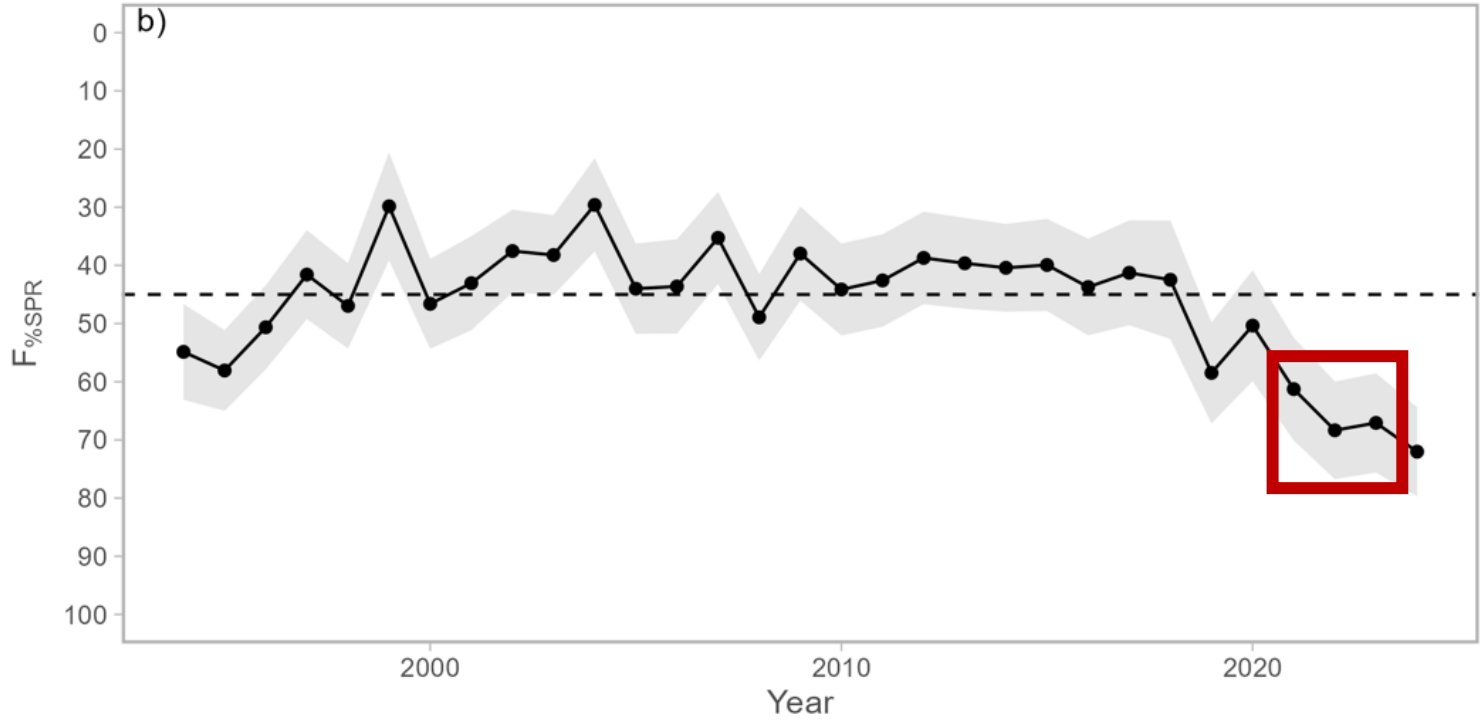


Estimated dynamic biomass ratio

- 30%$SSB_{current,F=0}$ threshold (dotted line)
- 14%$SSB_{current,F=0}$ threshold (dashed line)
- Biomass above both for the whole time period

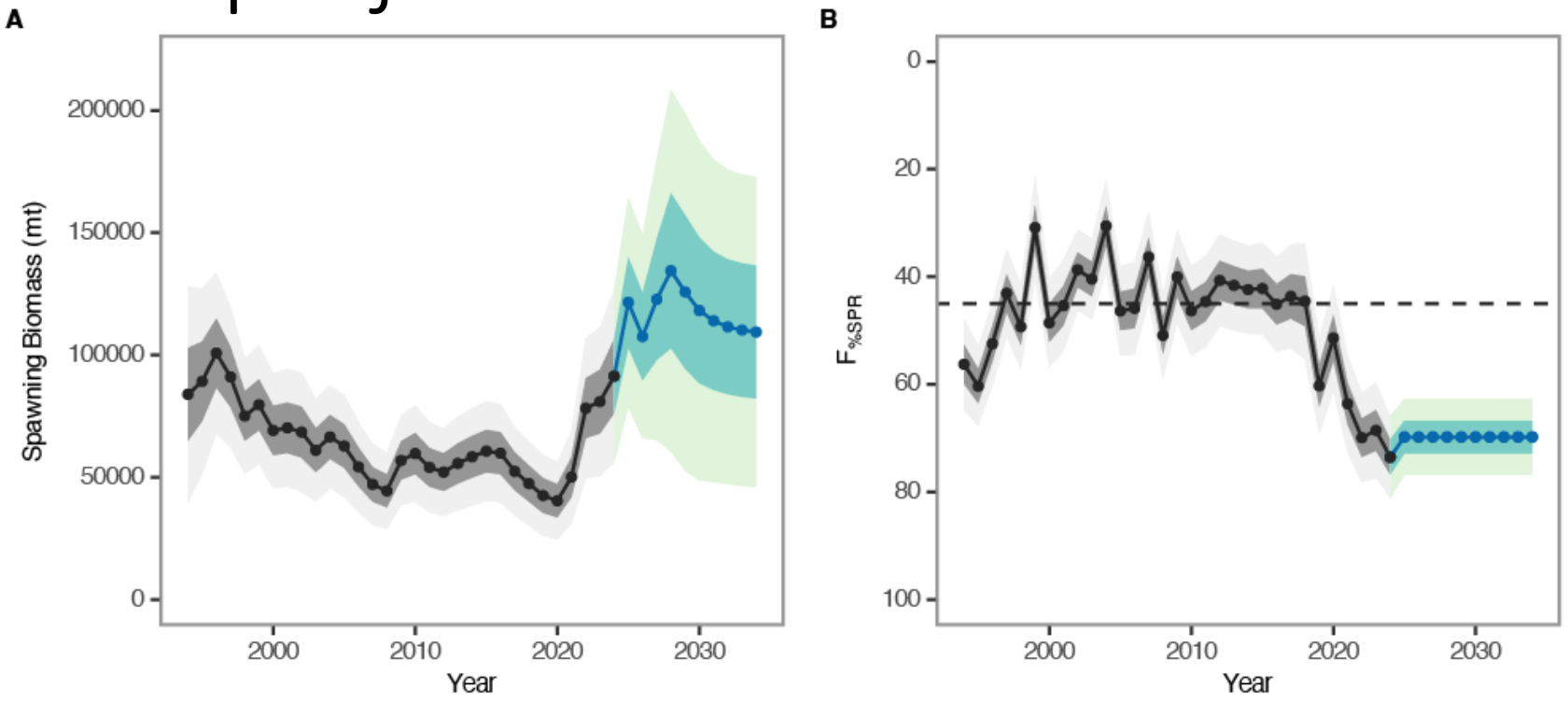


6. Future projections



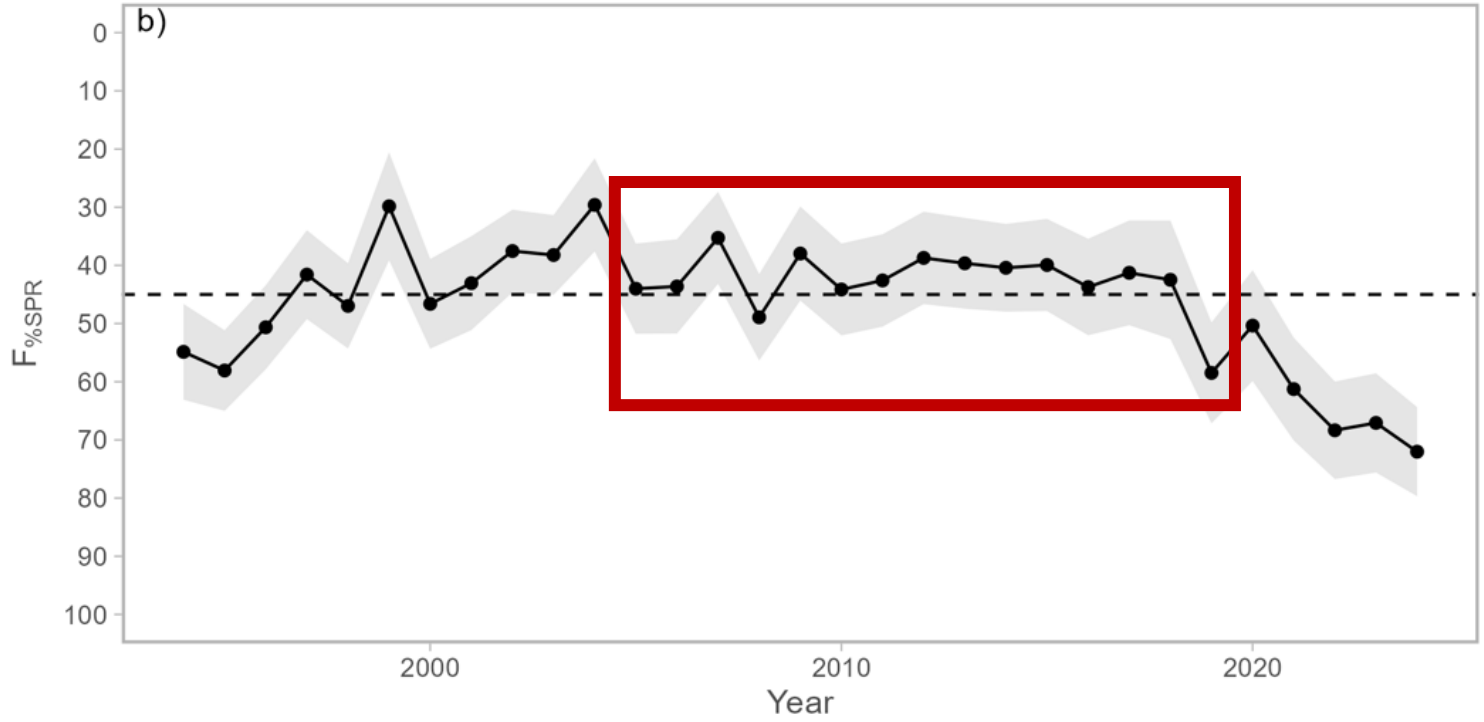
- Constant F Scenario
- Averaged 2021-2023 fishing intensity
- Projected 2025-2034

Future projections



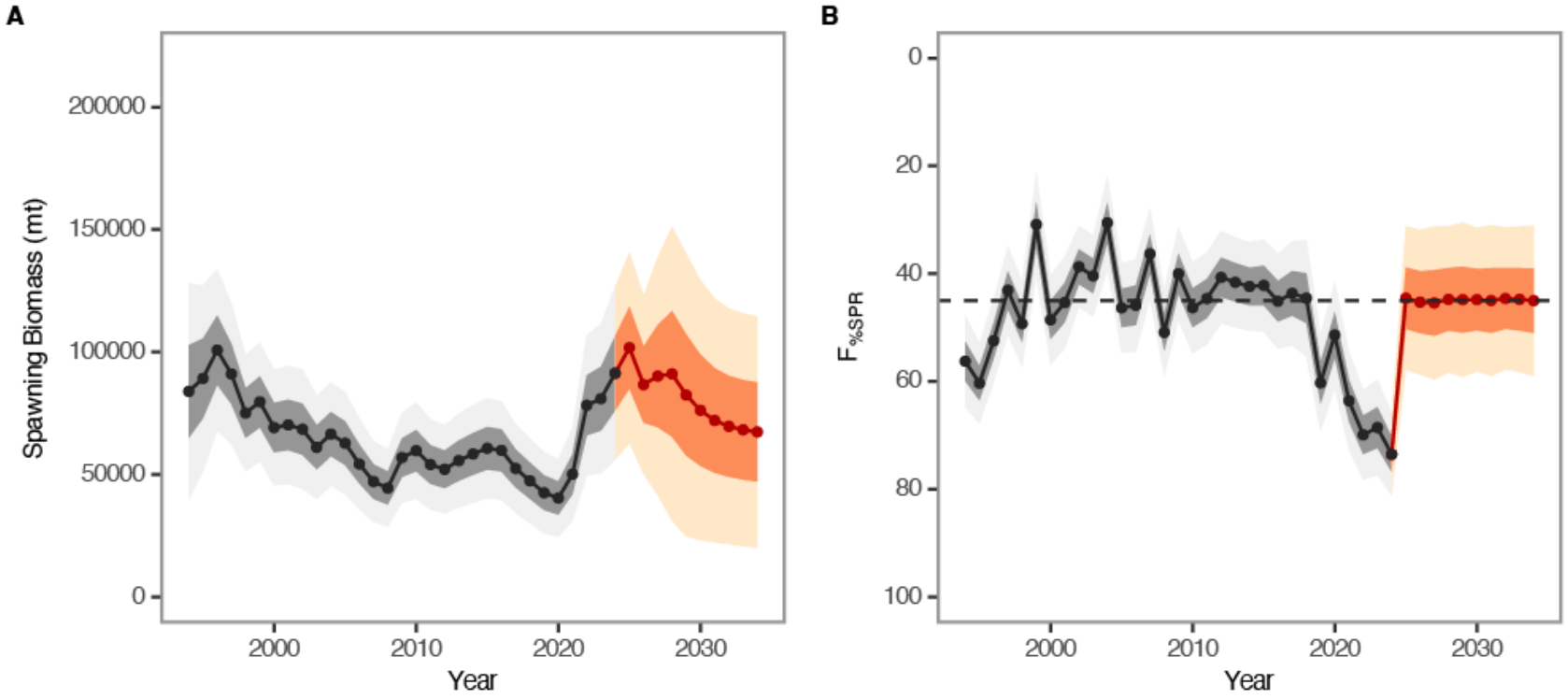
- Averaged 2021-2023 fishing intensity
- Female SSB increases to around 83% of $SSB_{current,F=0}$ by 2034
- 100% probability female SSB above 14%$SSB_{current,F=0}$
- 95.3% chance fishing intensity remains at or below $F45_{\%SPR}$

Future projections



- Randomly resampled fishing intensity scenario
- Sampled from 2005-2019 fishing intensity
- Projected 2025-2034

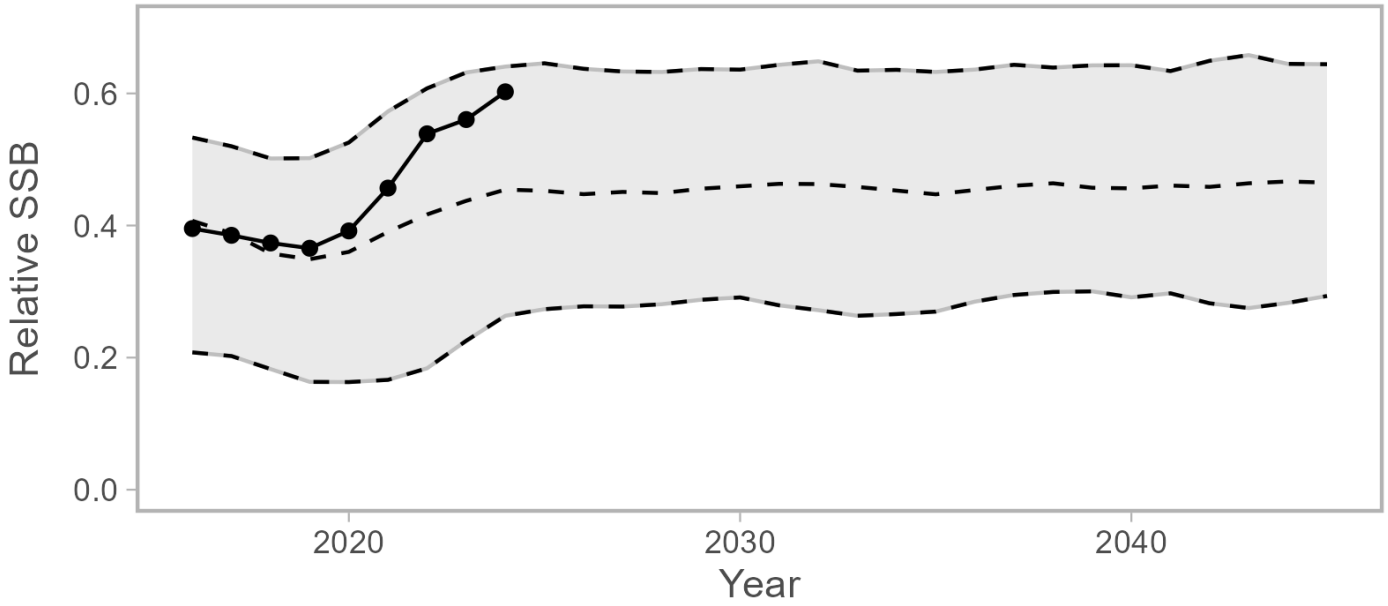
Future projections

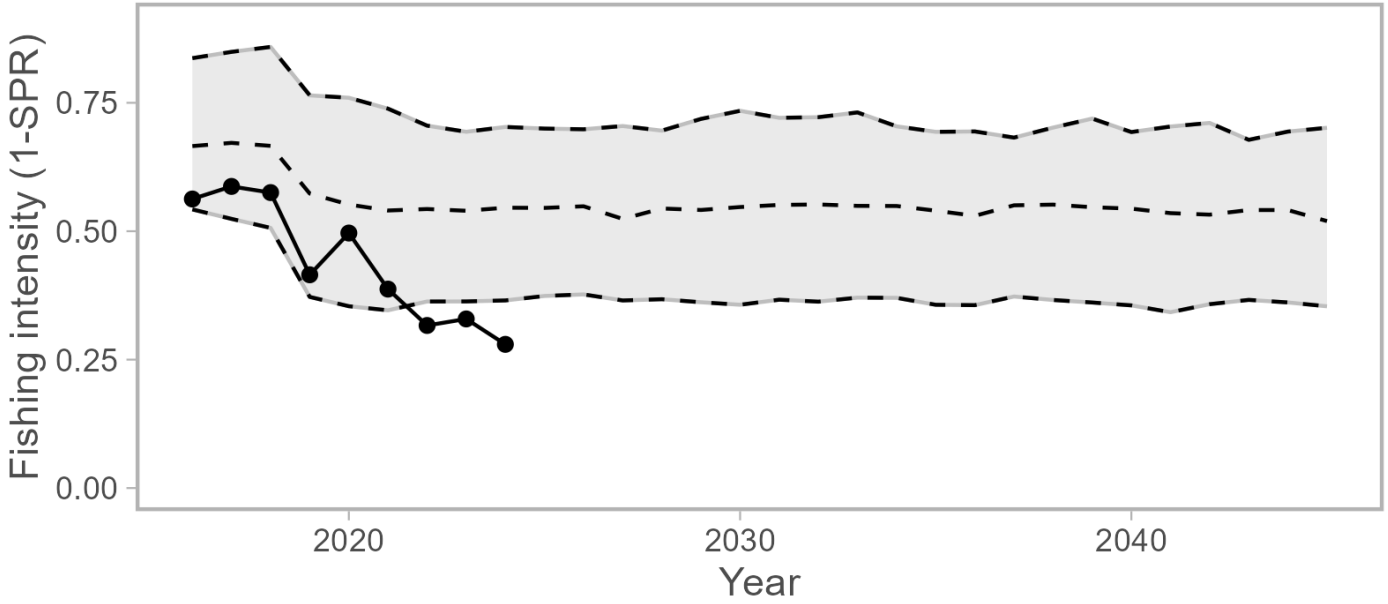


- Randomly sampled 2005-2019 fishing intensity
- Female SSB increases to around 52% of $SSB_{current,F=0}$ by 2034
- 99.1% probability female SSB above 14%$SSB_{current,F=0}$
- 48.8% chance fishing intensity remains at or below $F45_{\%SPR}$

Exceptional Circumstances

- Warrant suspension or modification of current harvest strategies
- ALBWG evaluated adopted criteria for identifying exceptional circumstances
- No evidence that exceptional circumstances present with respect to conservation and management of the stock
- 2026 assessment results plotted relative to range of projections in 2021 MSE (90th percentiles)
- SSB relative to $SSB_{current,F=0}$





ISC26 Plenary

- ISC26 accepted the 2026 benchmark stock assessment as the best available science and supported the updated stock status and conservation information
- Discussions highlighted increasing biomass estimates since 2018, supported by several strong recruitment years and decreasing trends in total catch; however, caution should be used when interpreting magnitude of the biomass trends given the uncertainty in recruitment in terminal years
- ISC26 supported the evaluation of exceptional circumstances criteria and conclusion that there was no current evidence requiring suspension or modification of the harvest strategy
- Research recommendations were identified to investigate for the 2029 benchmark assessment