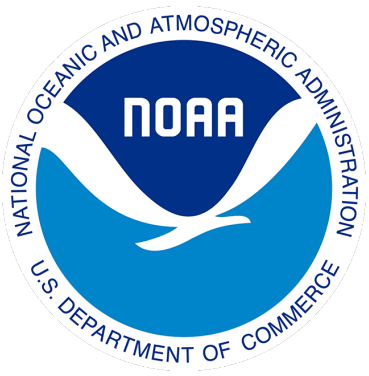
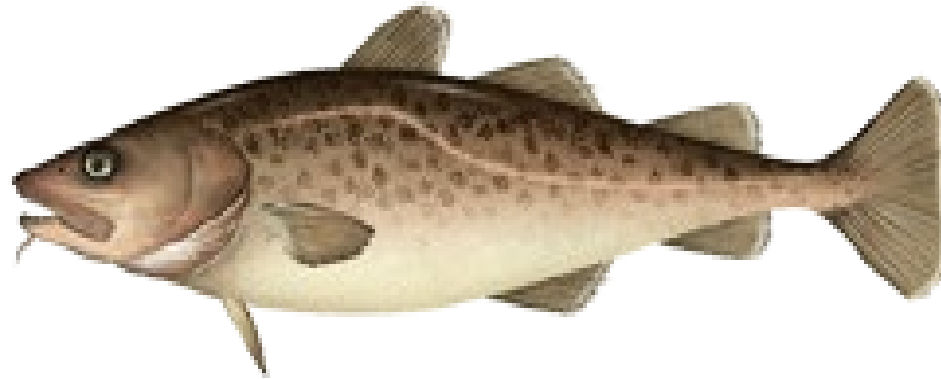




Bering Sea Pacific Cod Update FLC Symposium

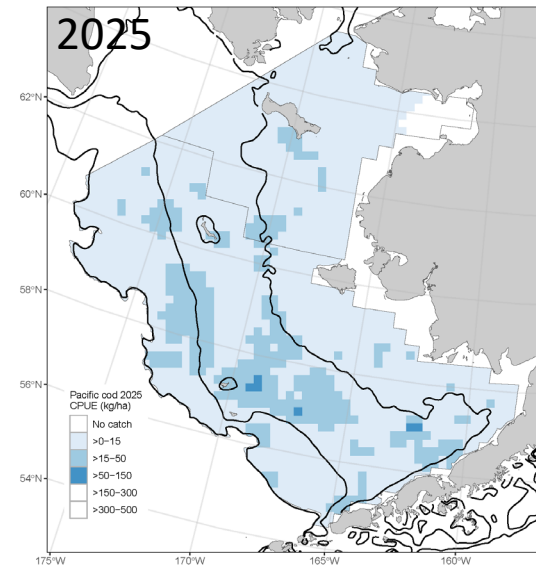
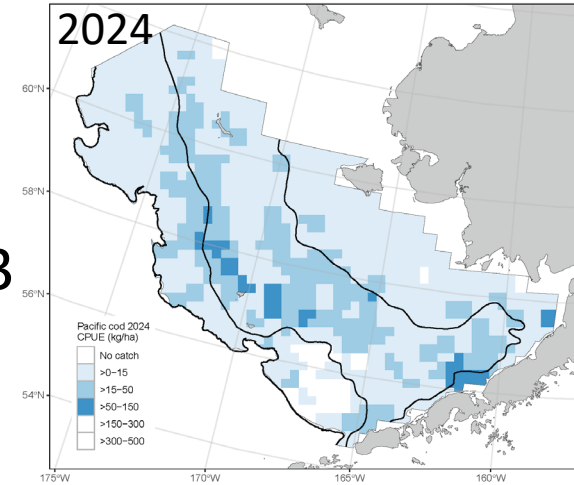
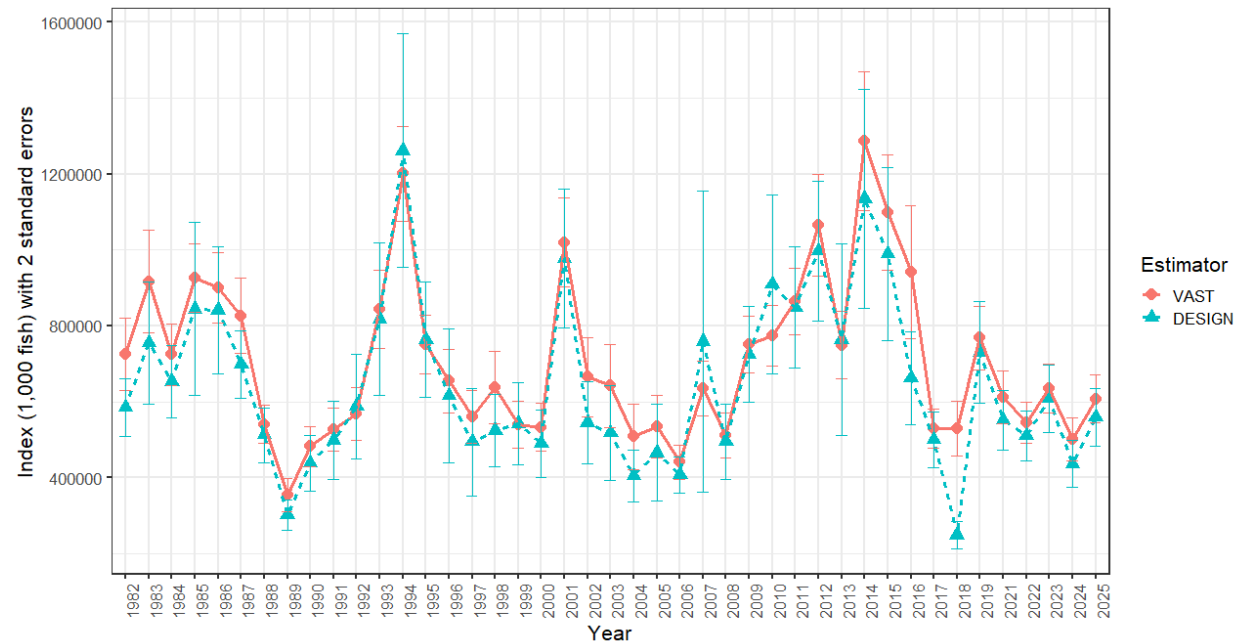
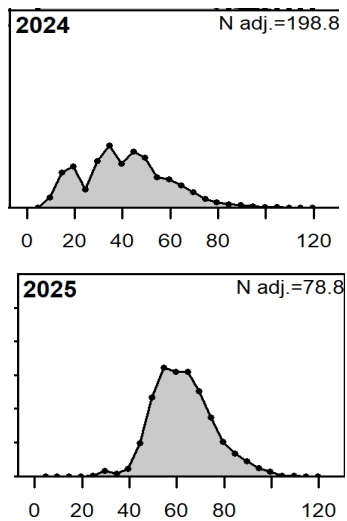


May 2026



2025 EBS bottom trawl survey

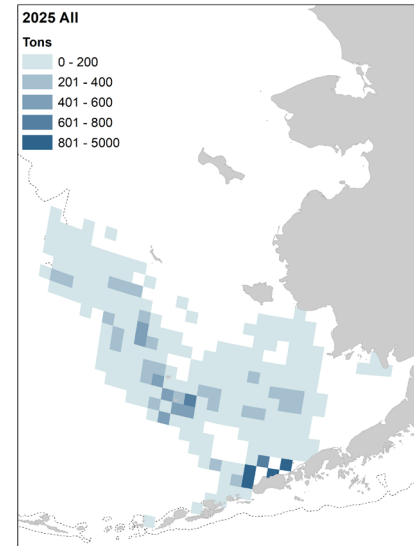
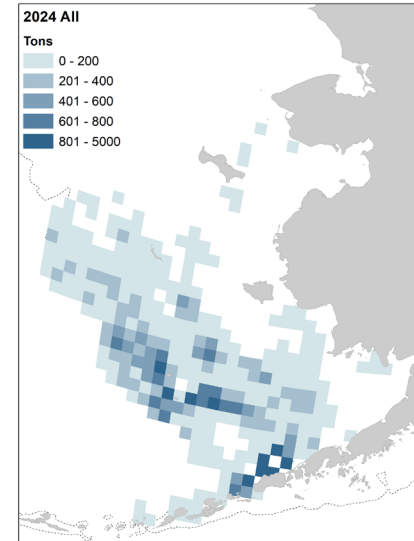
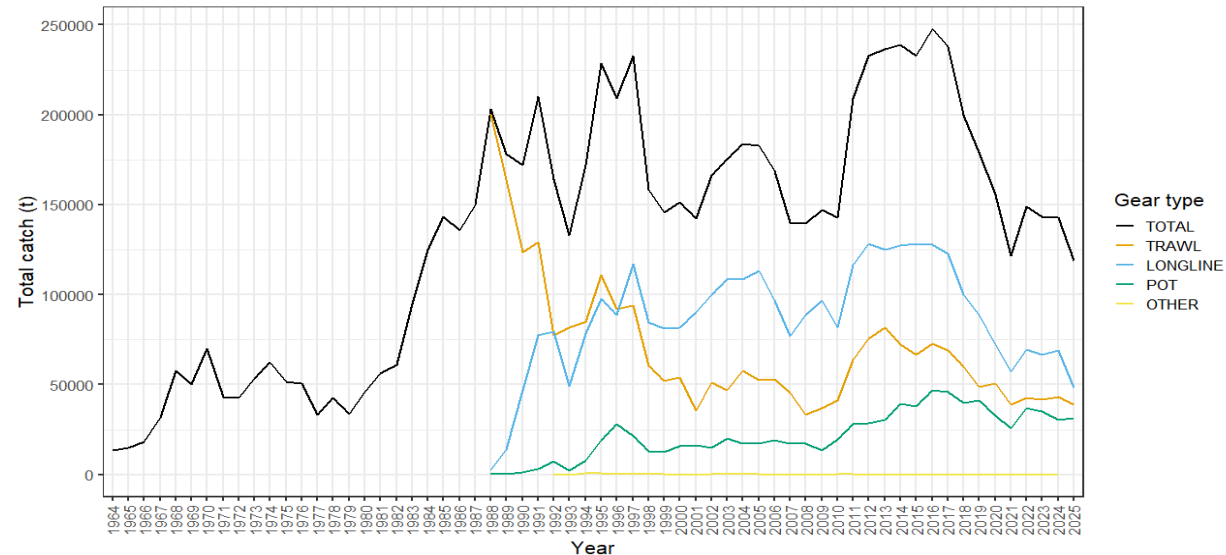
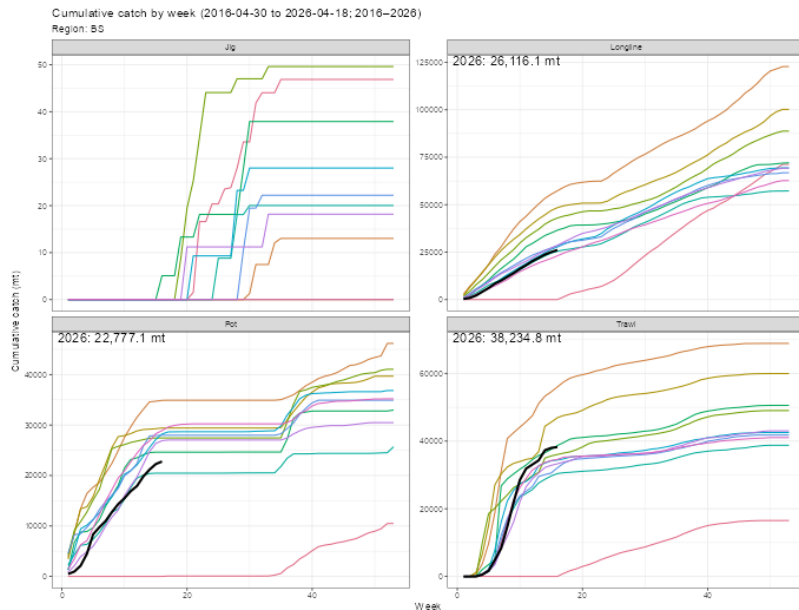
- Northern Bering Sea extension included
- VAST estimate using ice-extent as covariate
 - 21% increase in abundance from 2024, 4% decrease from 2023
 - 8% decline in biomass from 2023
 - Similar more southerly distribution as observed in 2024





2025-2026 Fishery

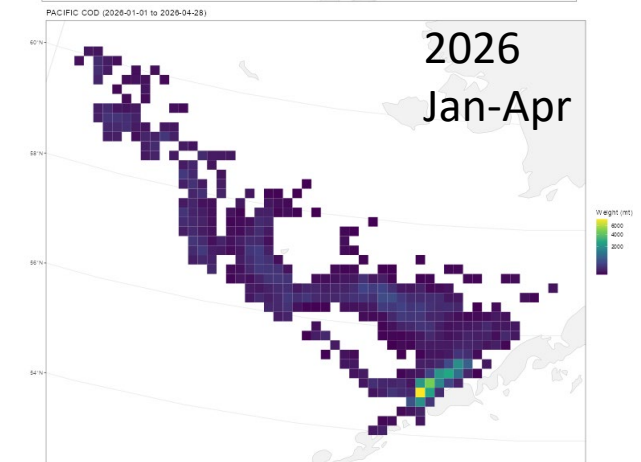
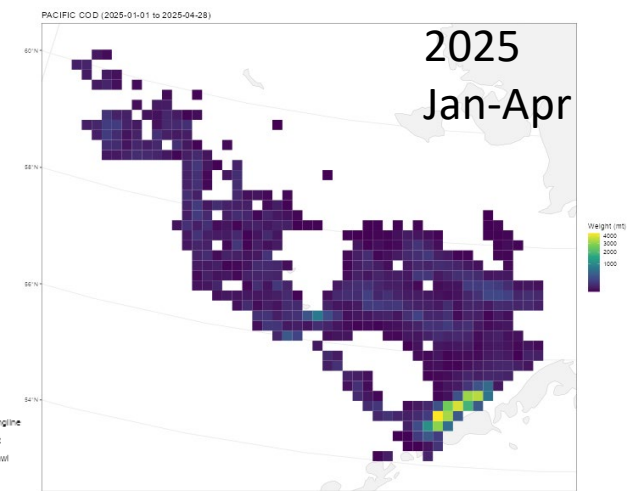
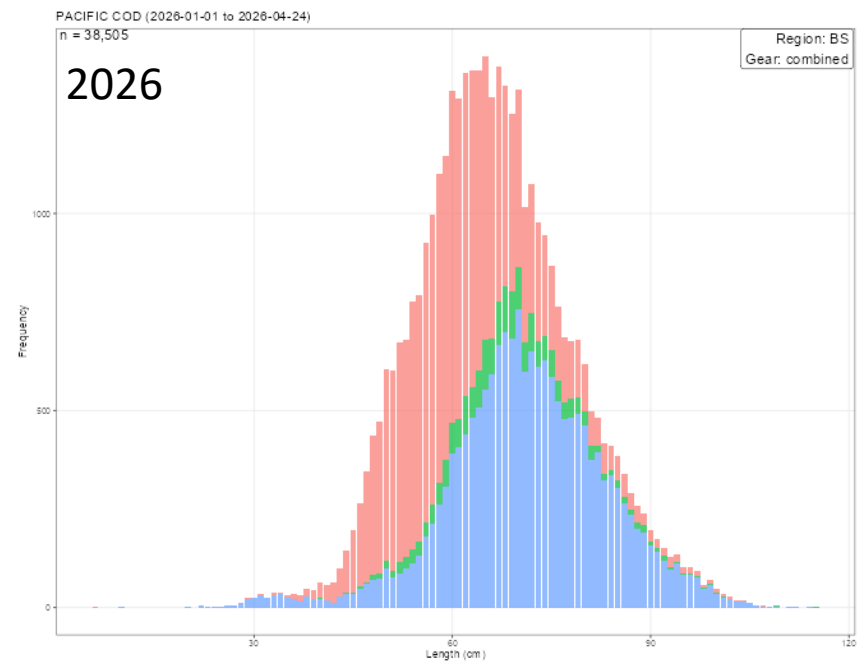
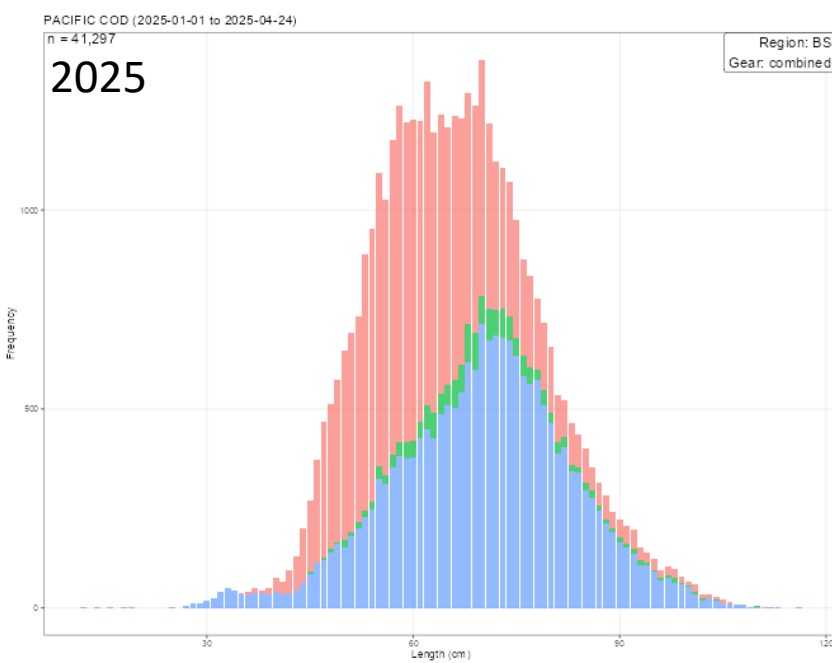
- Continued southward shift in distribution
 - CPUE increase in longline and pot
 - Earlier trawl fishery than 2024
- 2025 Catch was 138,950 t of 153,617 t ABC (90%), compared to 97-99% in 2019-2023 but better than 2024 (85%)





2025-2026 Fishery

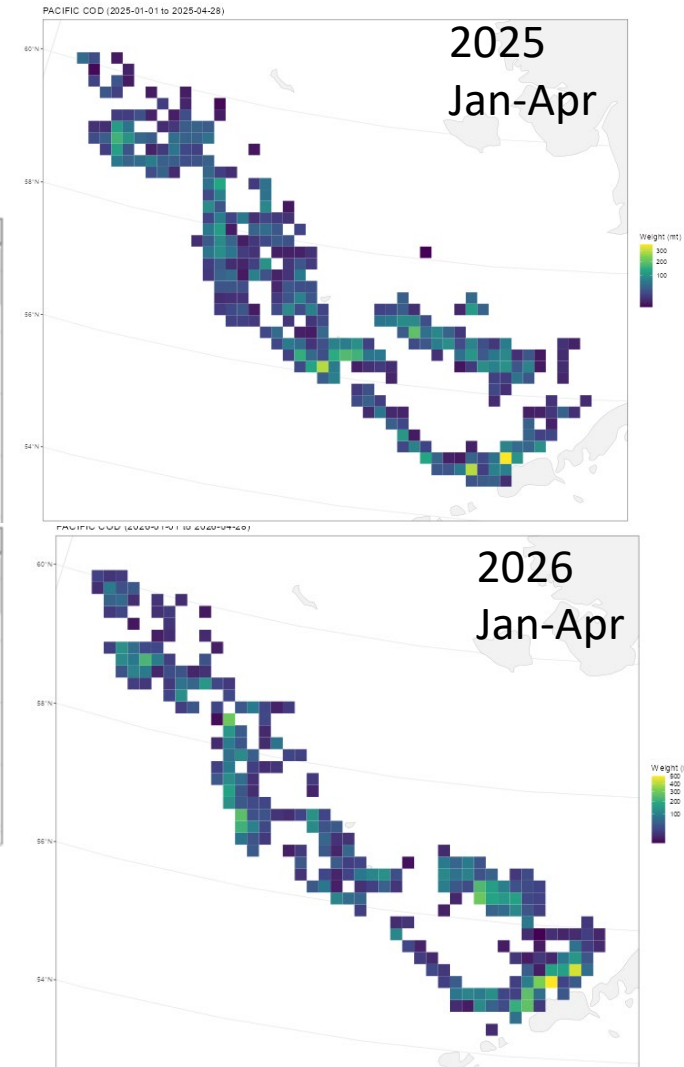
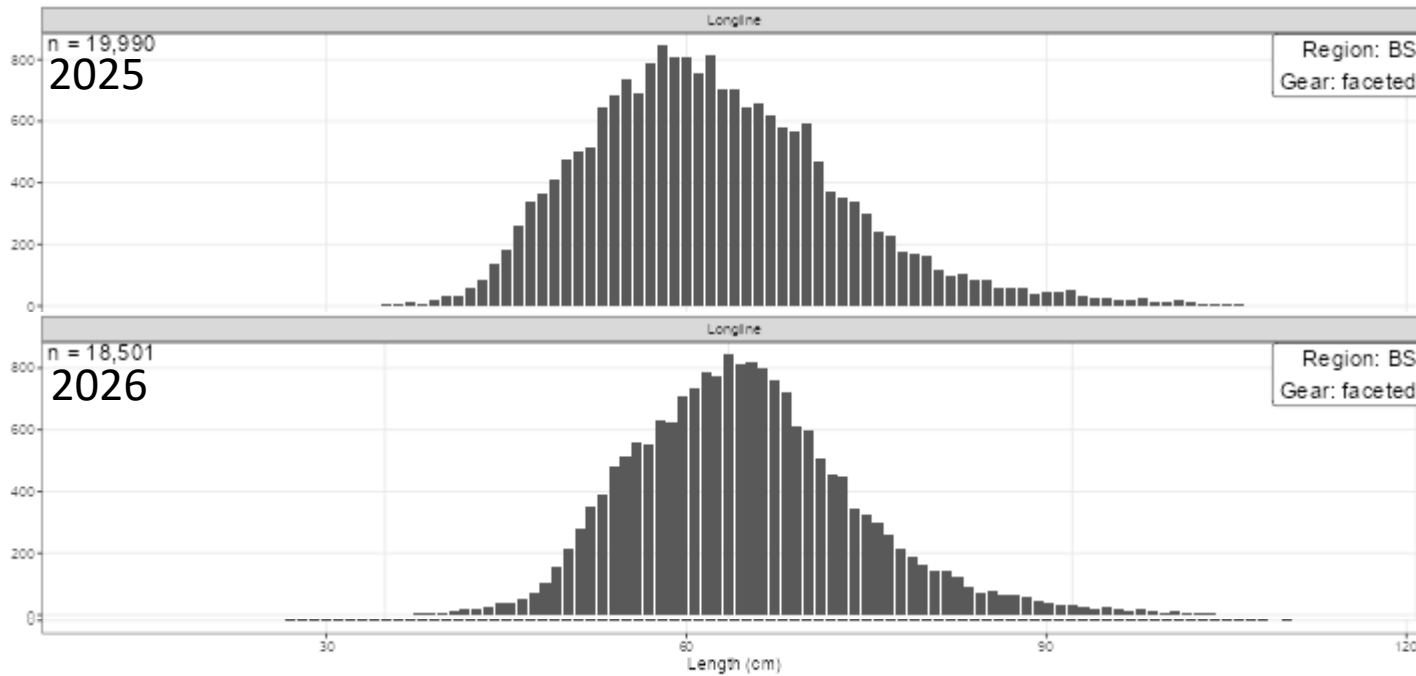
- A- Season size distribution of catch is similar to 2024 overall fleets





2025-2026 Fishery

- A-Season size distribution is somewhat larger for the longline fleet

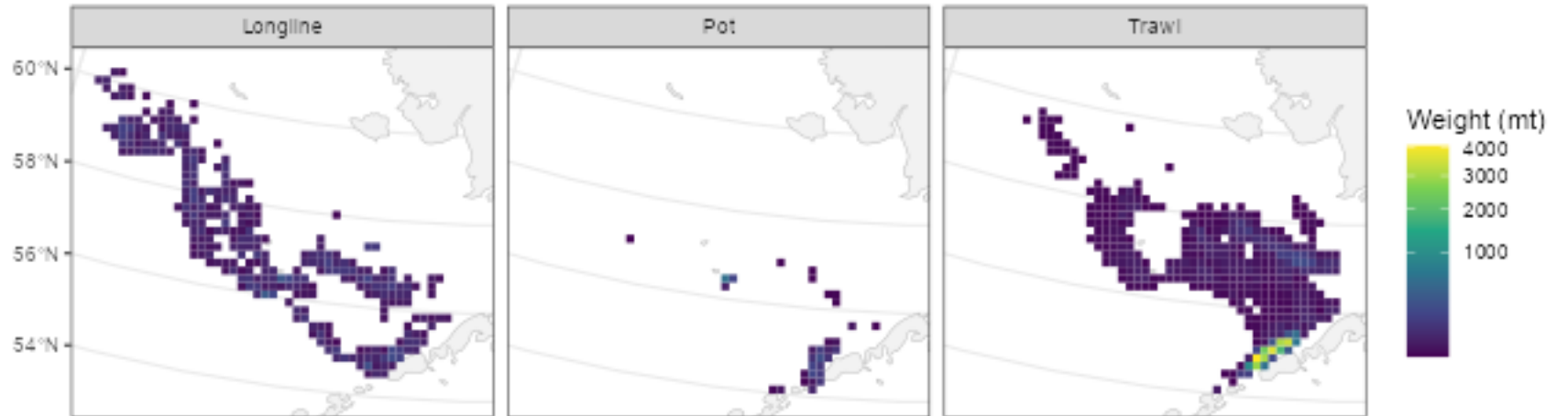




2025 and 2026 A-season (Jan-Apr)

- 2026 longline fishery appears more constrained to the shelf edge
- 2026 trawl catch is concentrated further south and west

PACIFIC COD (2025-01-01 to 2025-04-28)



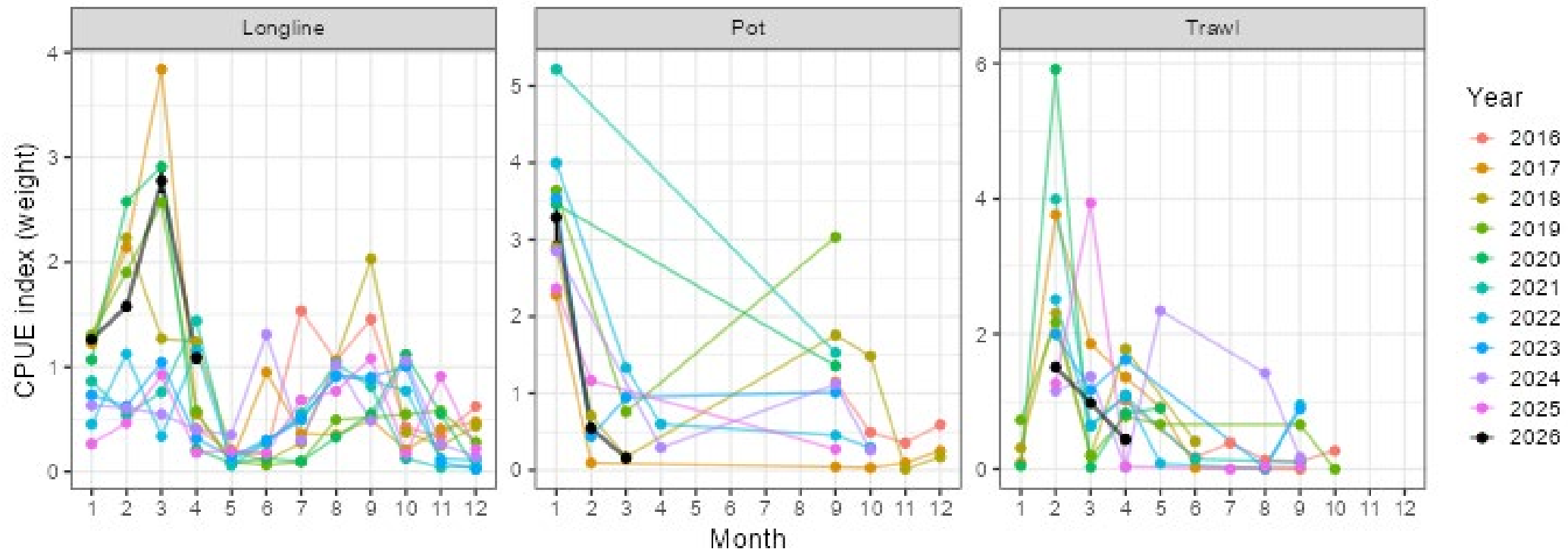
PACIFIC COD (2026-01-01 to 2026-04-28)

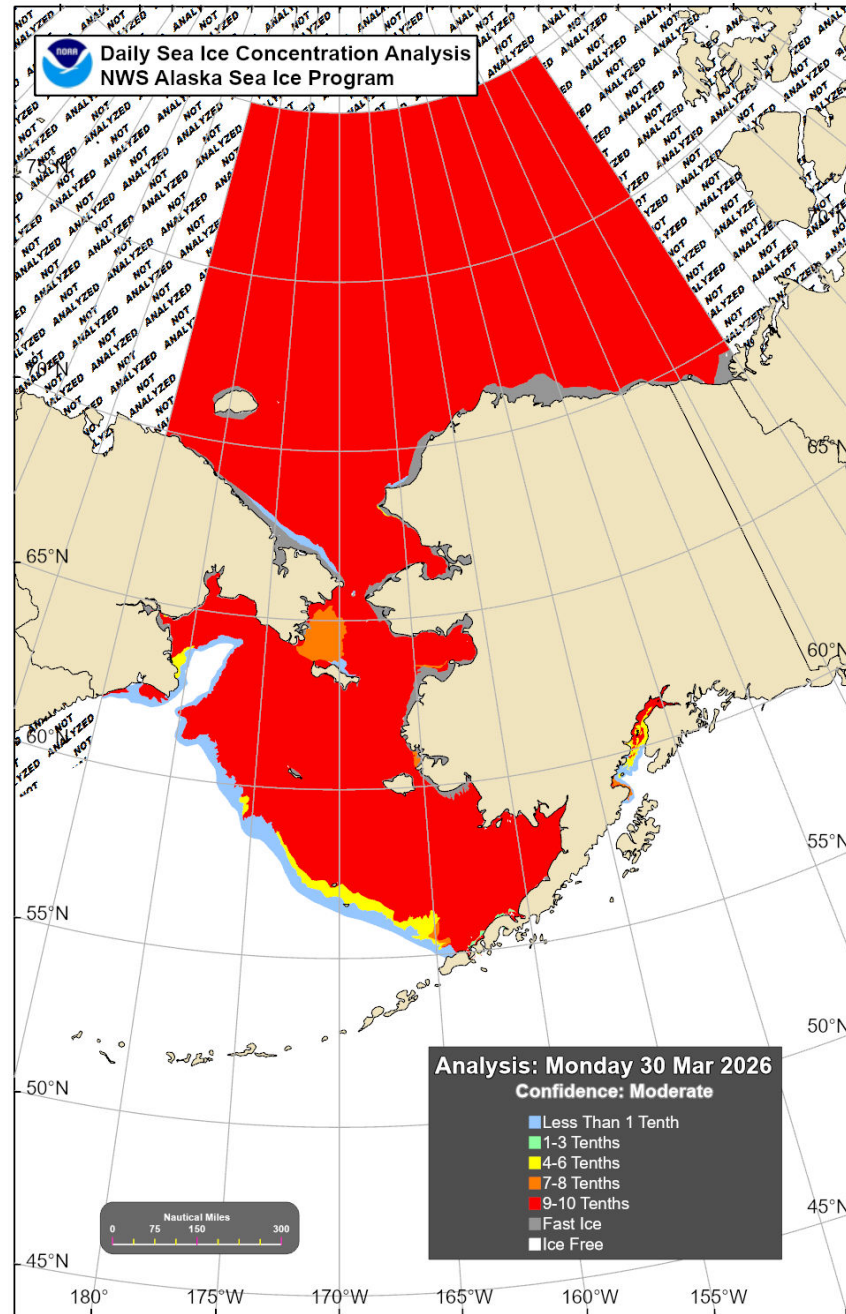
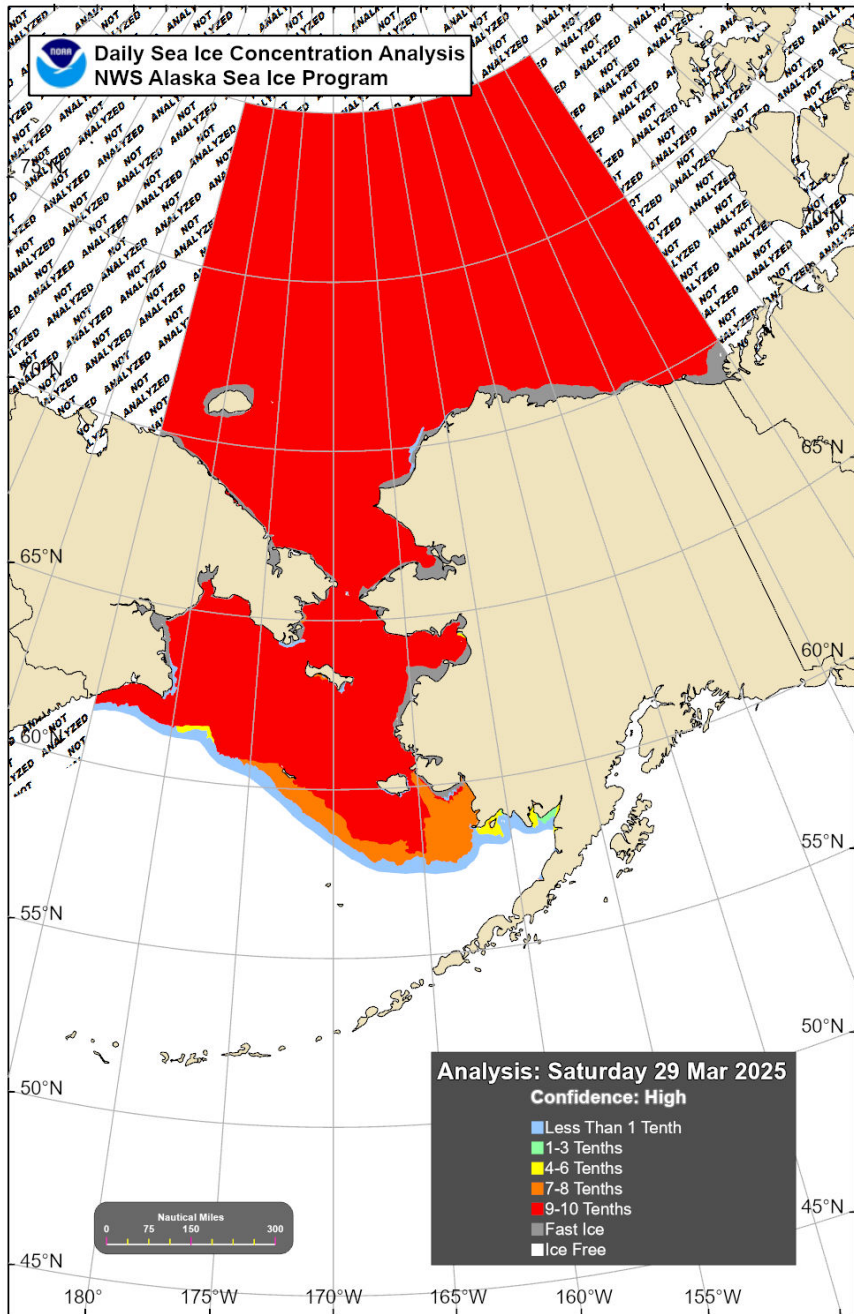




2026 A-season

- Longline CPUE for 2026 appears substantially higher than 2025

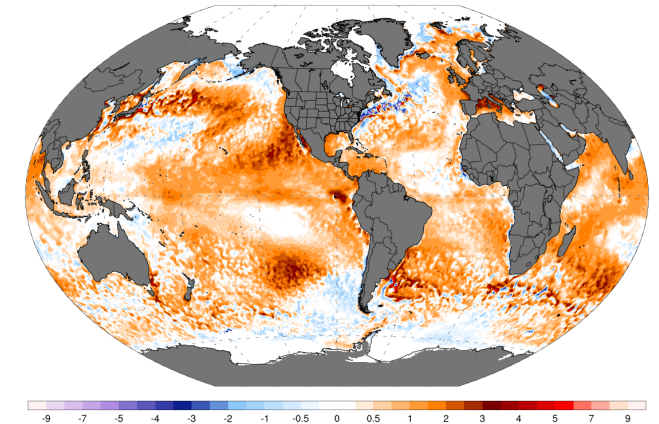


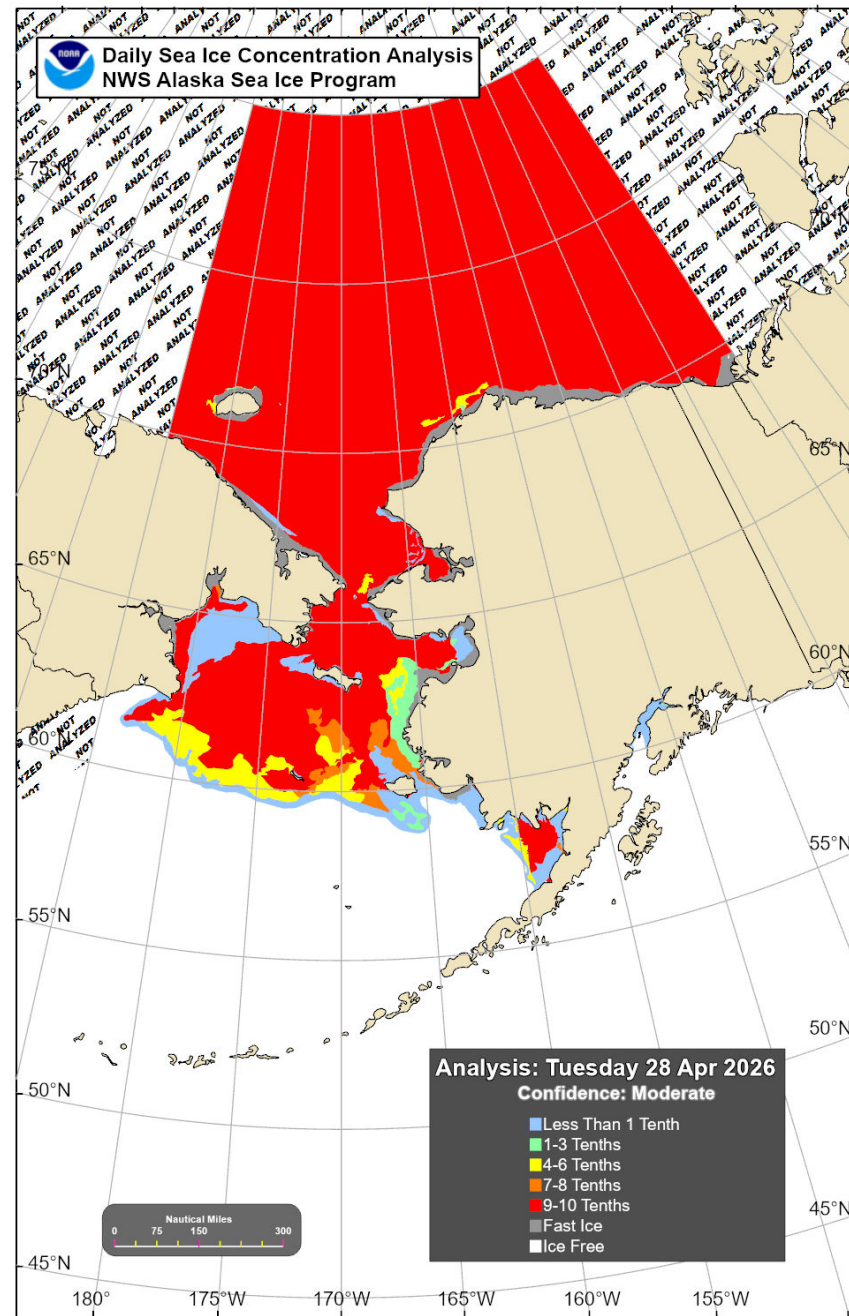
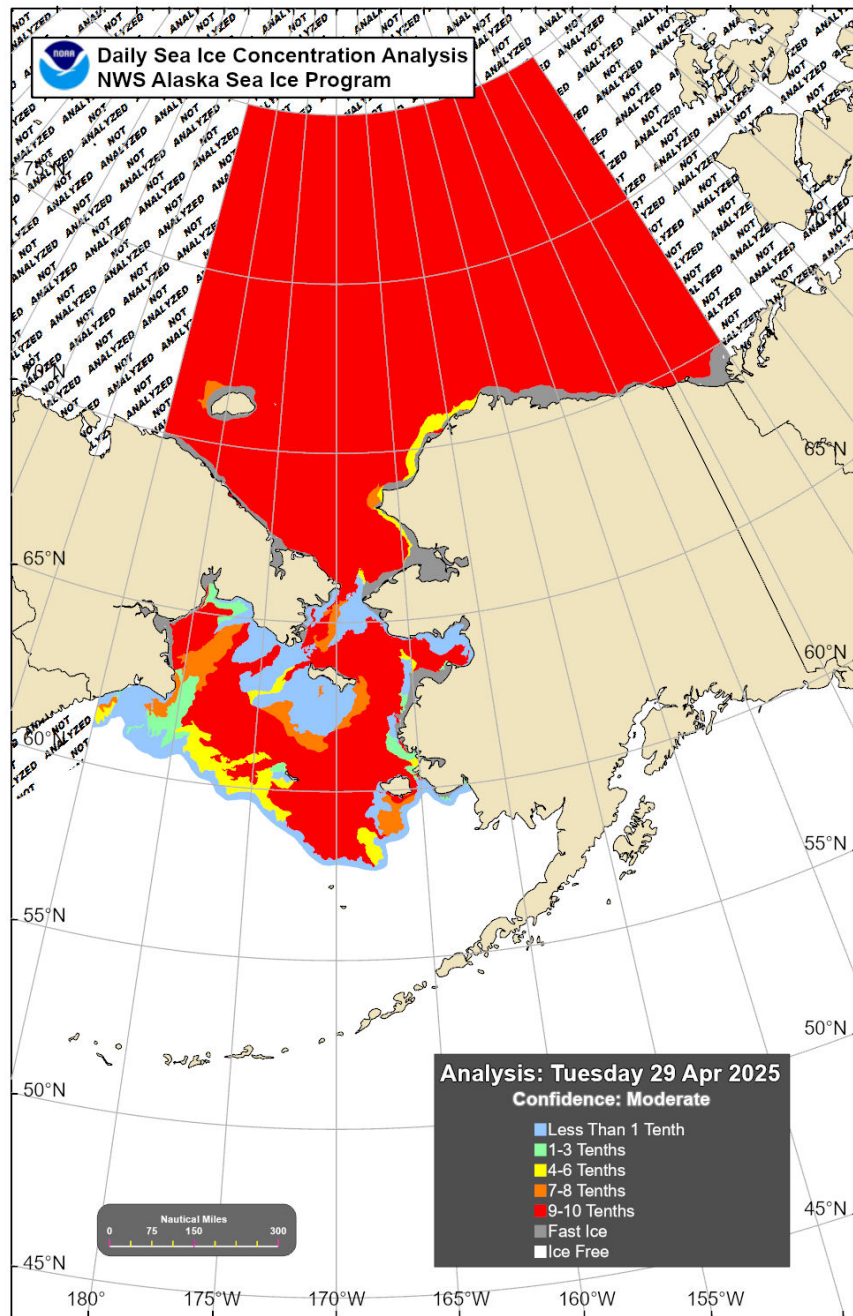


- March ice extent was near maximum for this week of the year
- However...

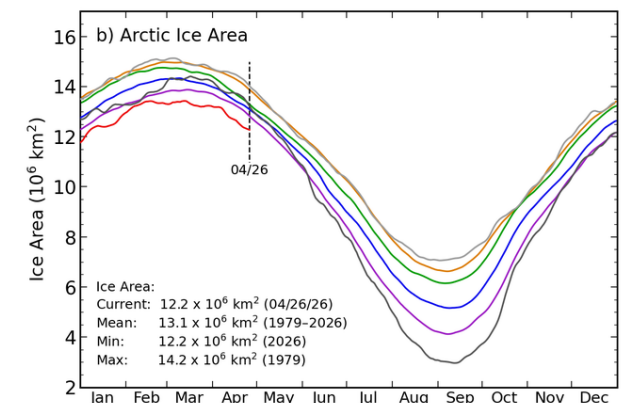
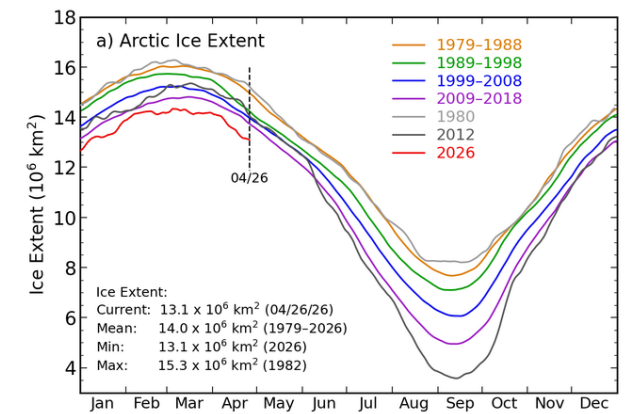
OISST SST Anomaly (°C) [1971-2000 baseline]
1-day Avg | Tue, Apr 28, 2026 [preliminary]

ClimateReanalyzer.org
Climate Change Institute | University of Maine





- Through the month of April ice retreated to near minimum conditions for this week of the year





NOAA ANIMATION

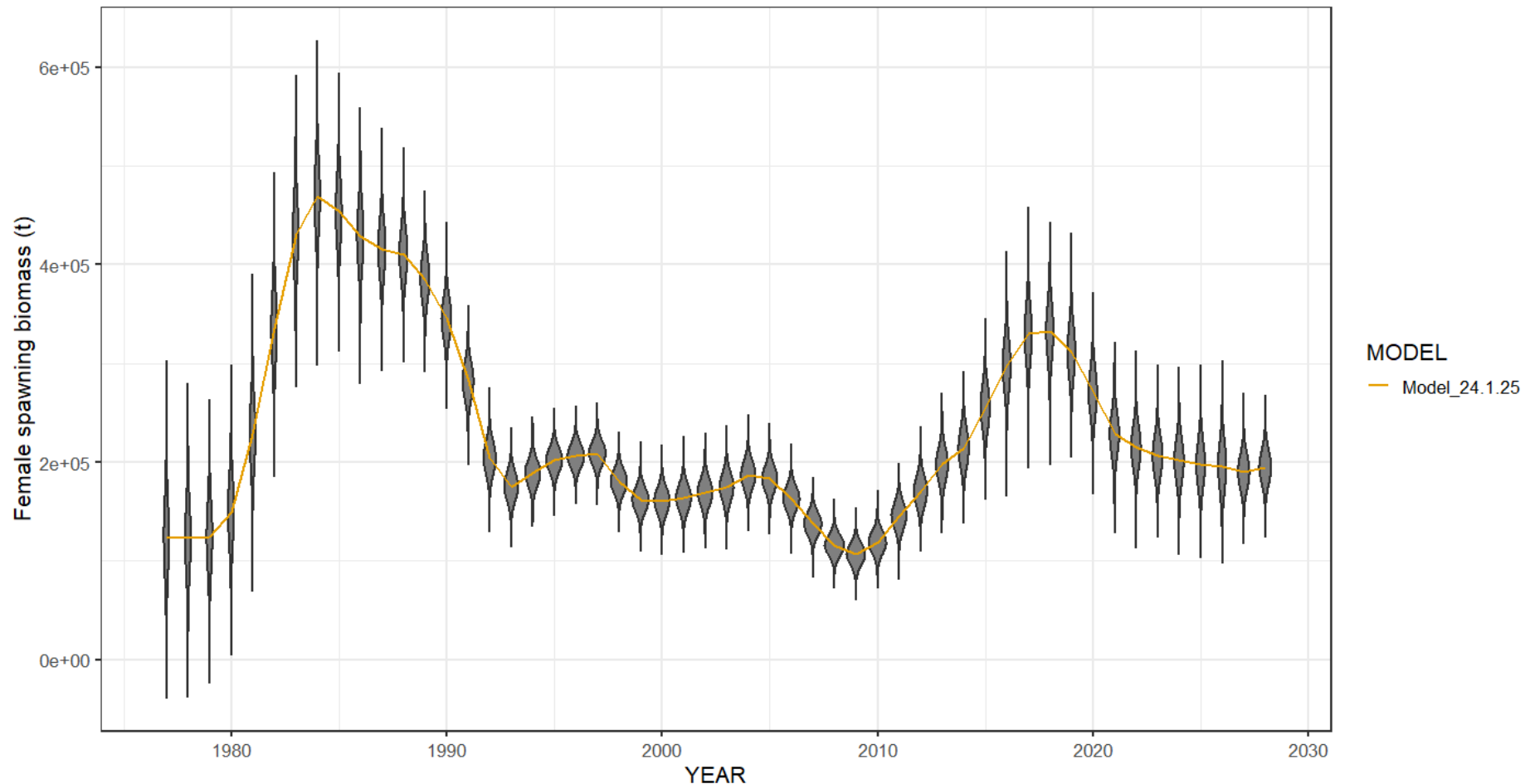
WHAT IF...?

Note: This assessment has not been reviewed and is not an official evaluation of the state of the stock



Model 24.1 (2025) Spawning biomass

- Dropping from 2018 high
- Continued decline from 2024
- Projected to stabilize in 2027-2028
- $B_{36\%}$

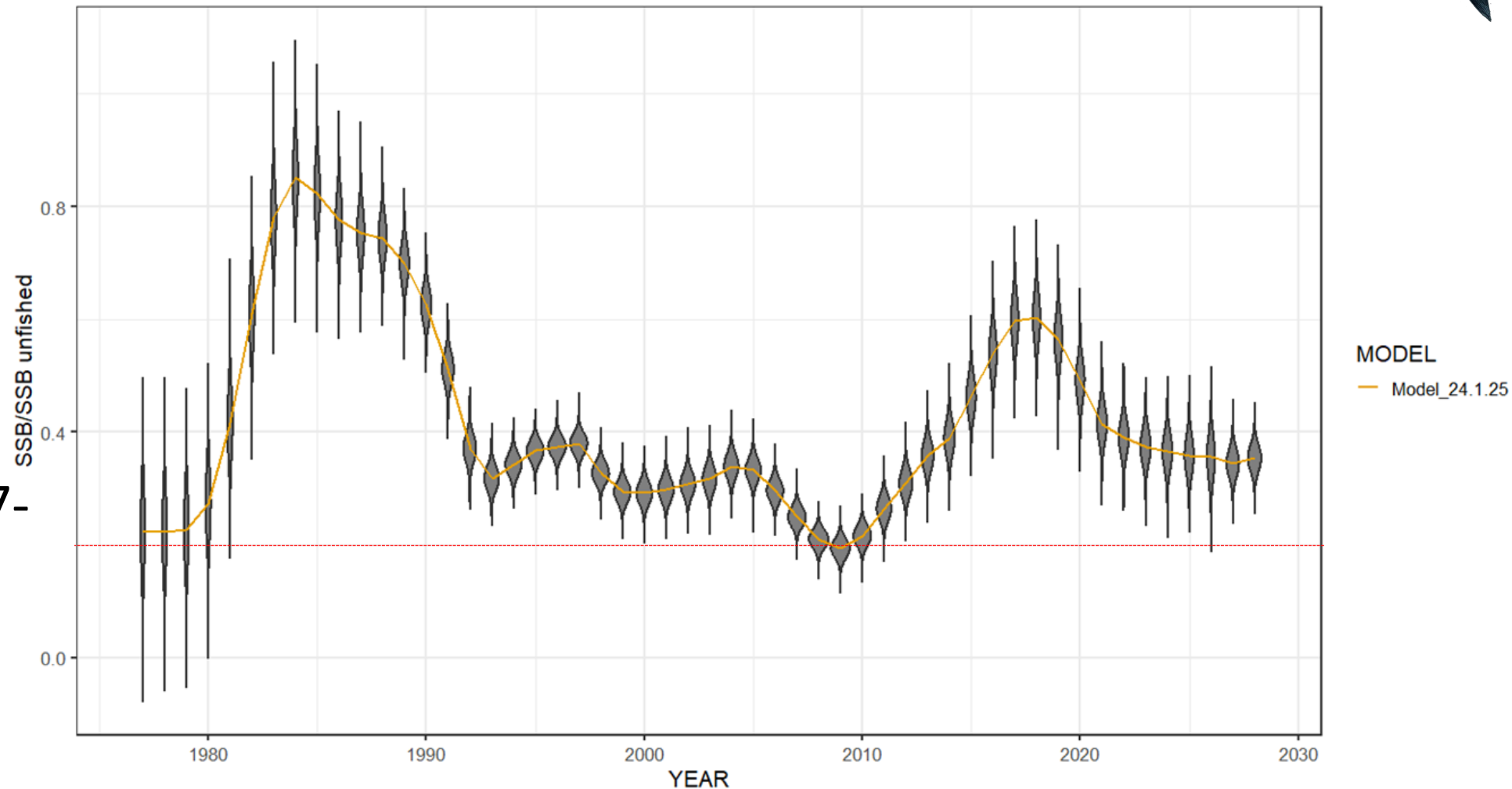


Note: This assessment has not been reviewed and is not an official evaluation of the state of the stock



Model 24.1 (2025) Status

- Dropping from 2018 high
- Continued decline from 2024
- Projected to stabilize in 2027-2028
- $B_{36\%}$

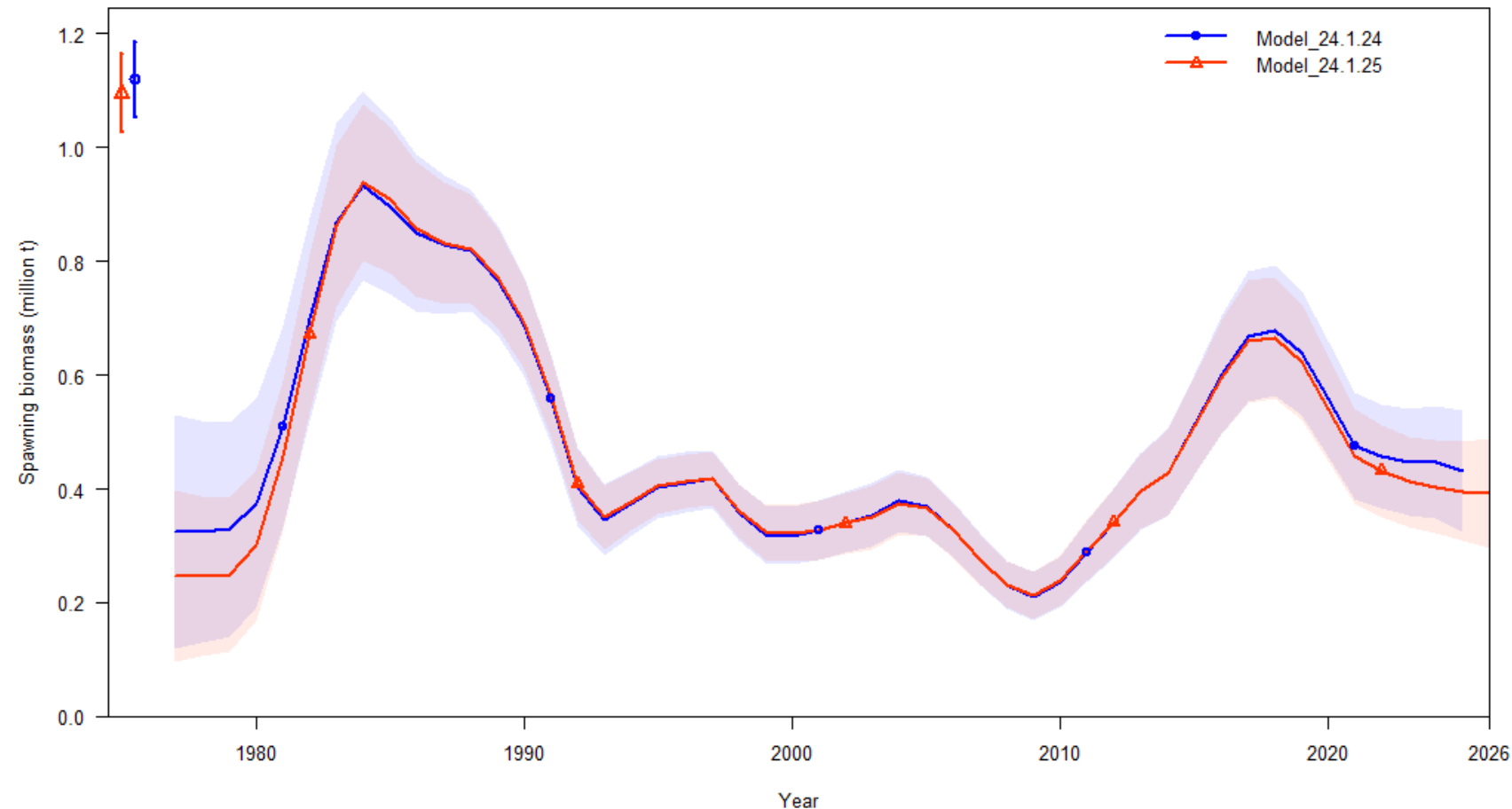


Note: This assessment has not been reviewed and is not an official evaluation of the state of the stock

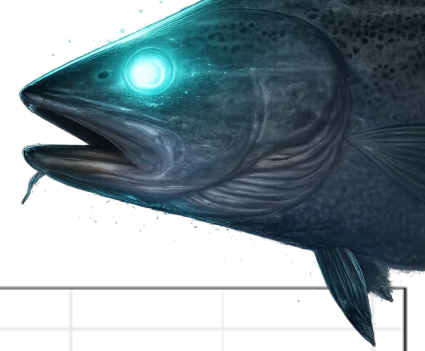


Model 24.1 (2025) Spawning biomass

- Spawning biomass was estimated to be lower than the 2024 estimates for most recent years.

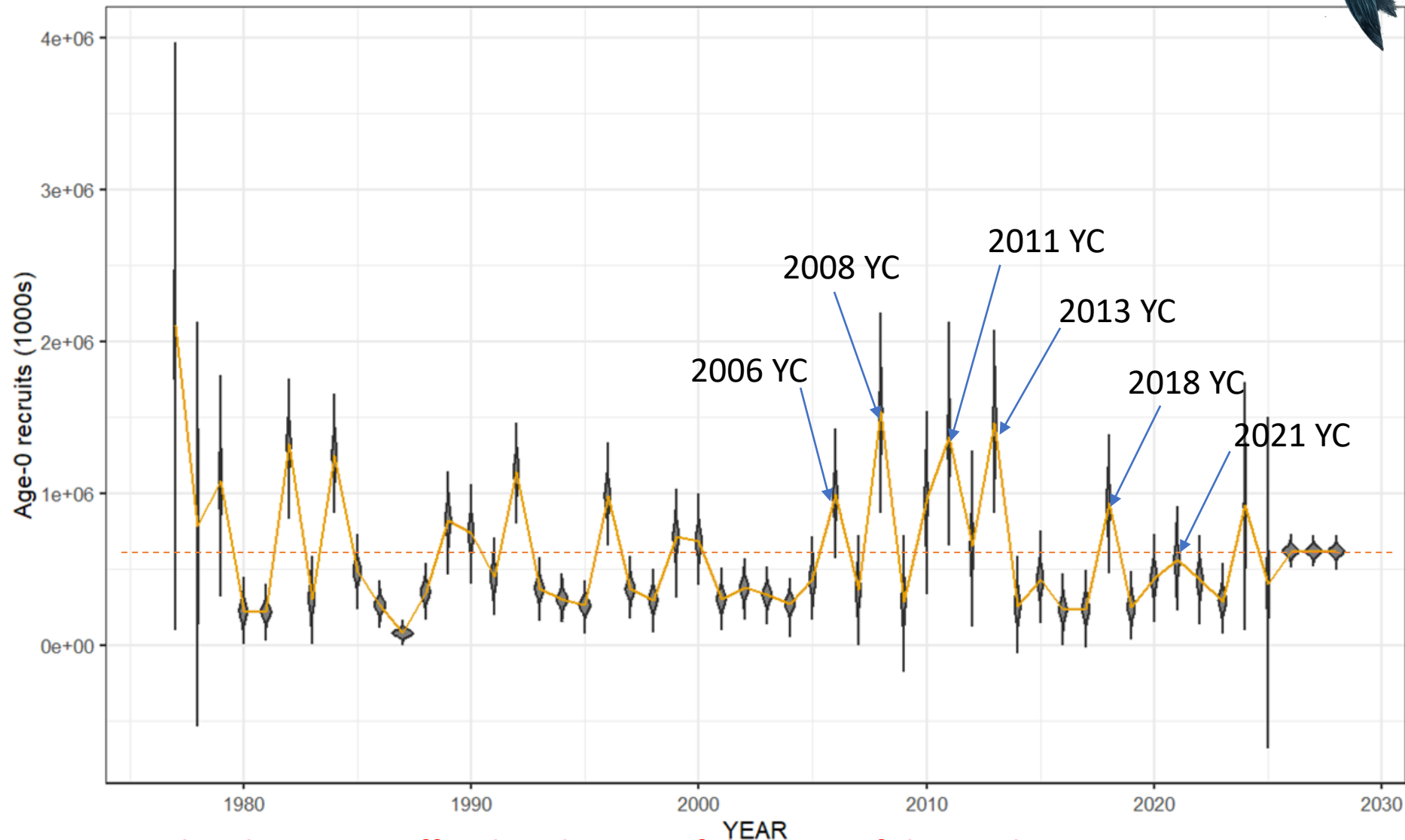


Note: This assessment has not been reviewed and is not an official evaluation of the state of the stock



Model 24.1(2025)Recruitment

- 2021 near average
- 2024 projected to be above average, but very uncertain

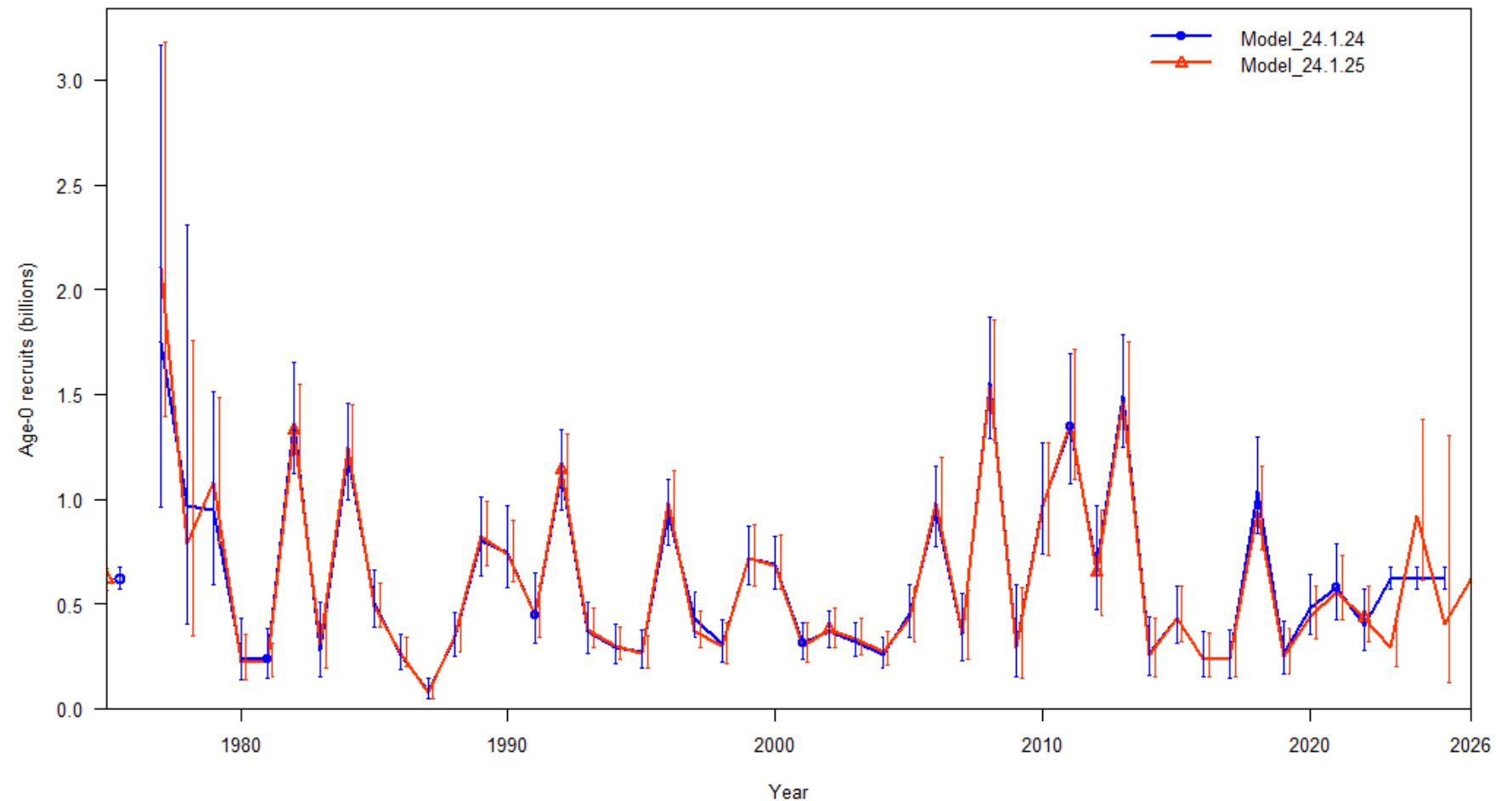


Note: This assessment has not been reviewed and is not an official evaluation of the state of the stock

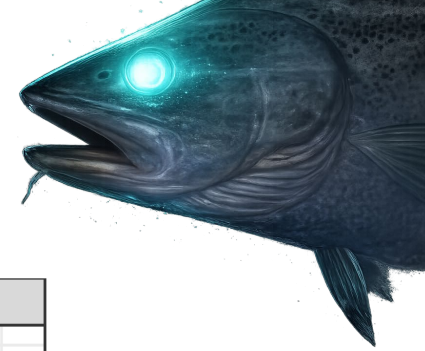


Model 24.1(2025)Recruitment

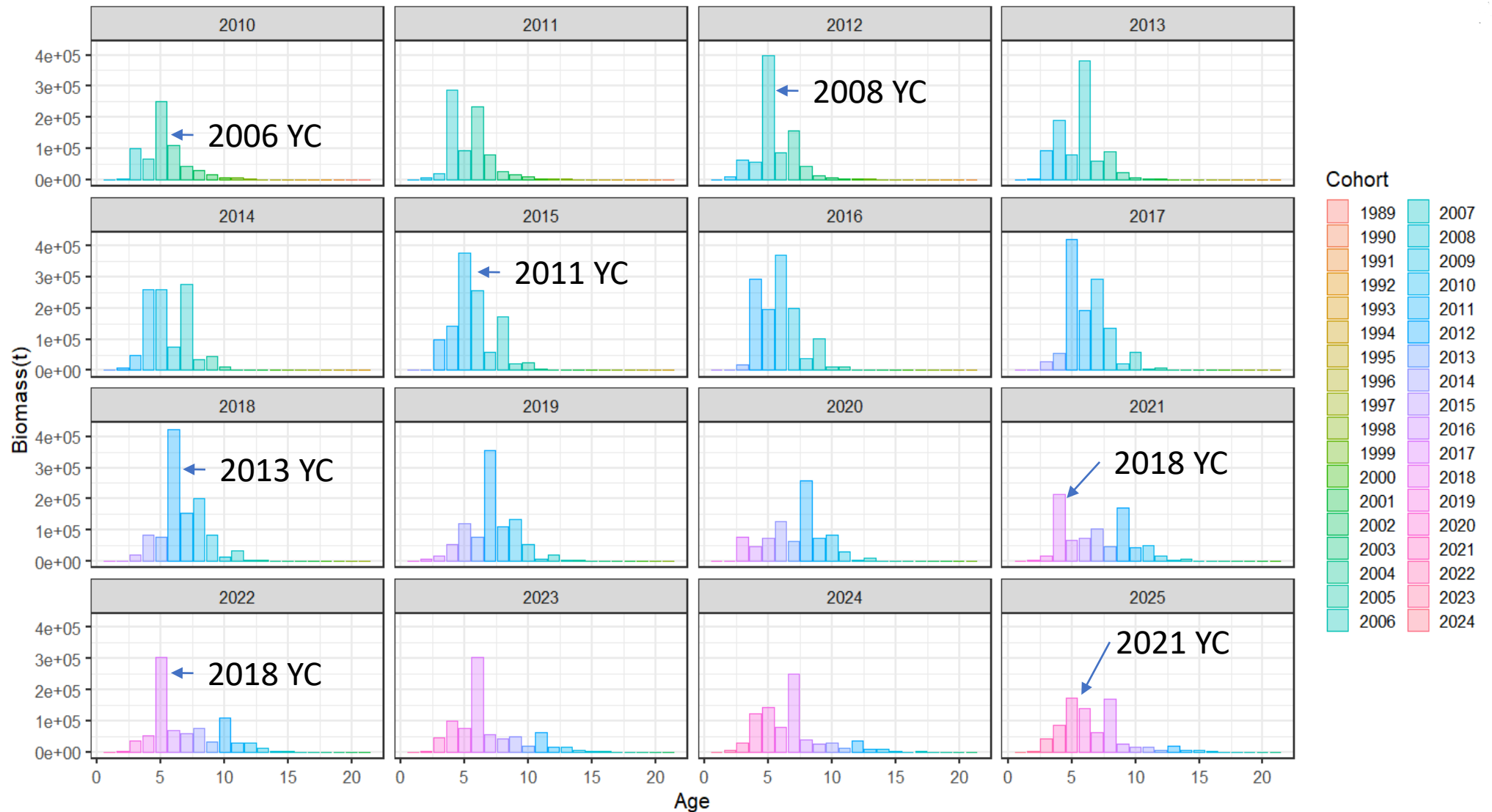
- The 2025 model recruitment compared to 2024
 - Lower for 2023
 - Higher for 2024, but highly uncertain



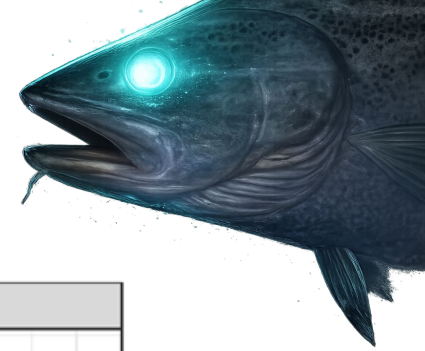
Note: This assessment has not been reviewed and is not an official evaluation of the state of the stock



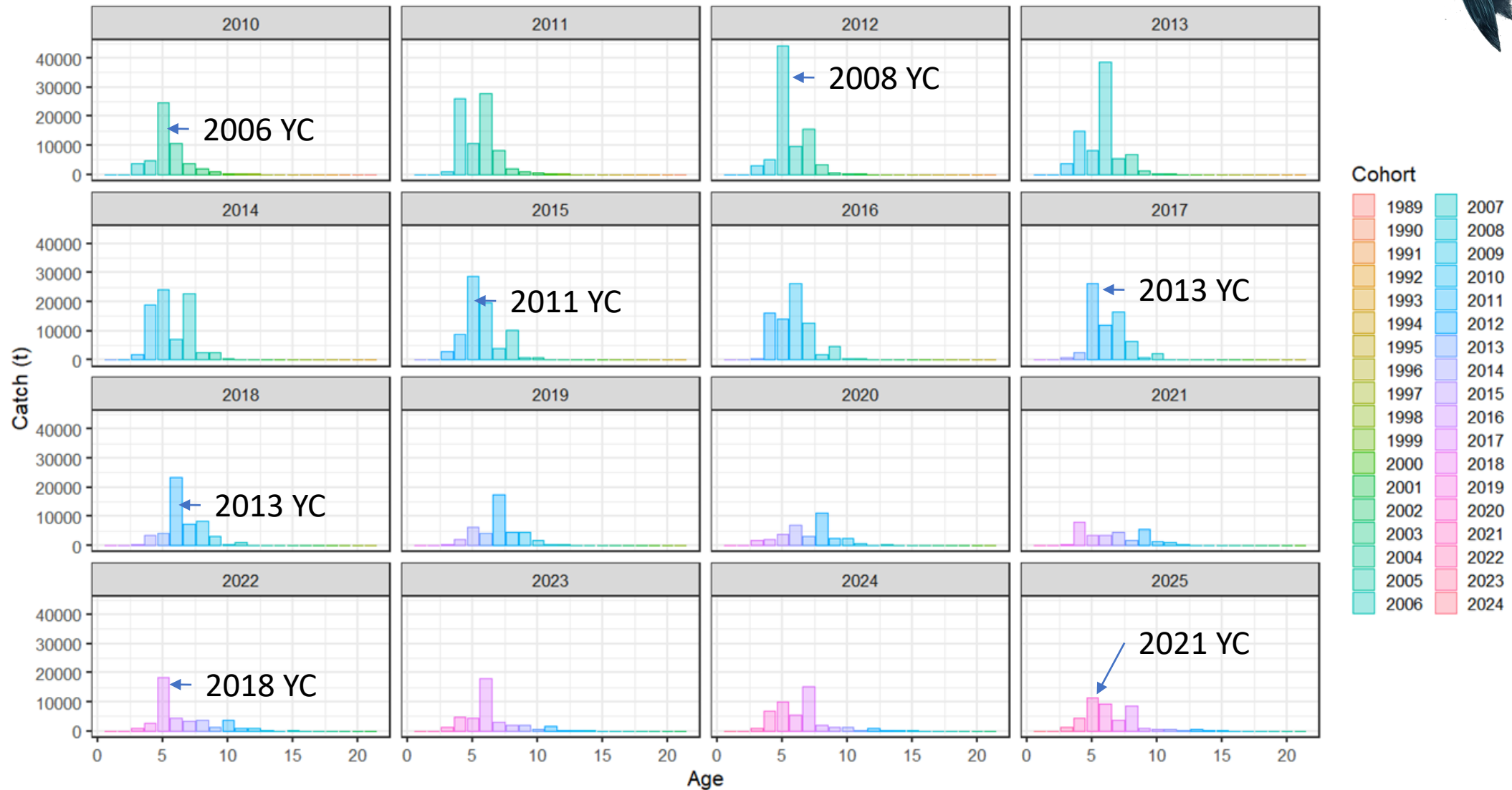
Model 24.1 Biomass by cohort



Note: This assessment has not been reviewed and is not an official evaluation of the state of the stock

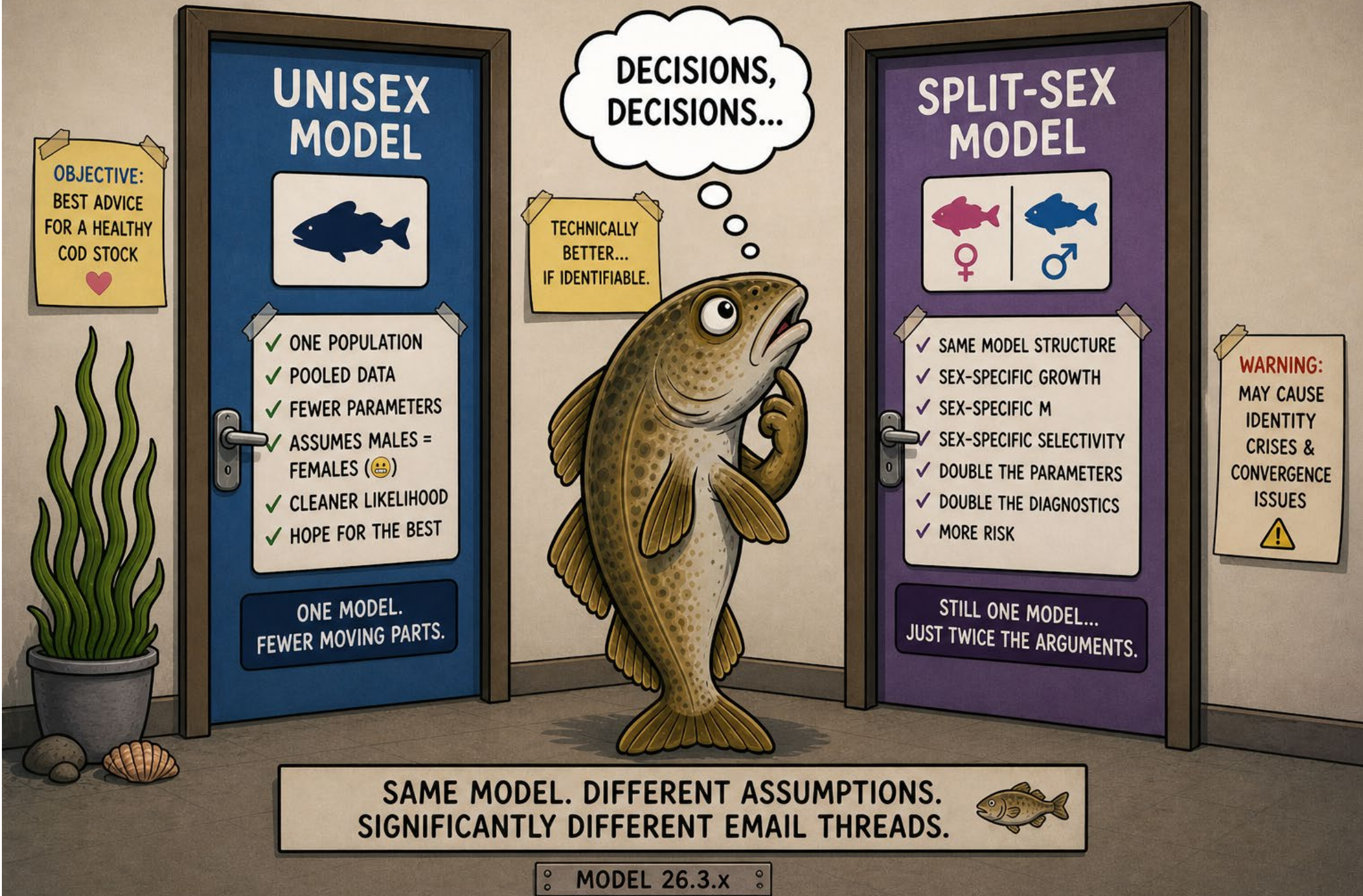


Model 24.1(2025) Catch by cohort



Note: This assessment has not been reviewed and is not an official evaluation of the state of the stock

2026 Split-sex Model Exploration

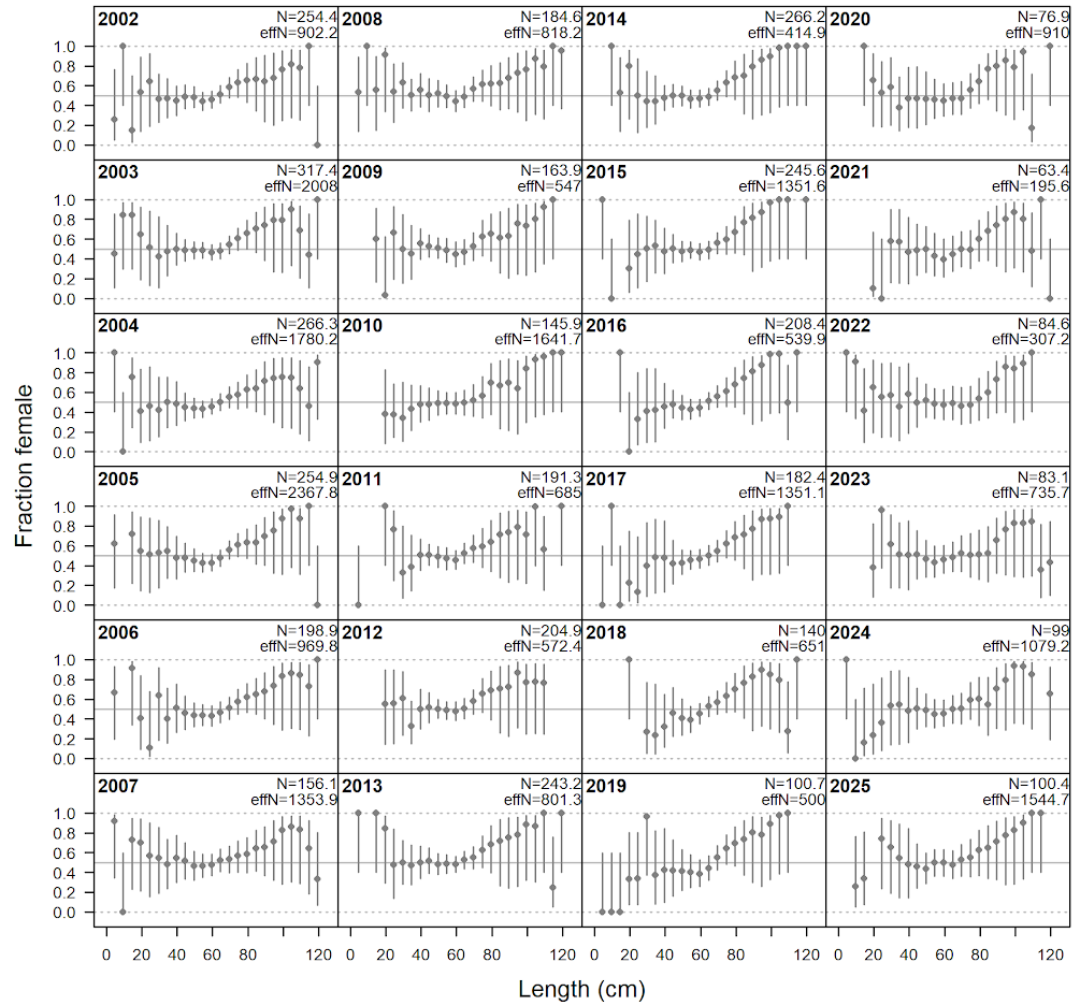
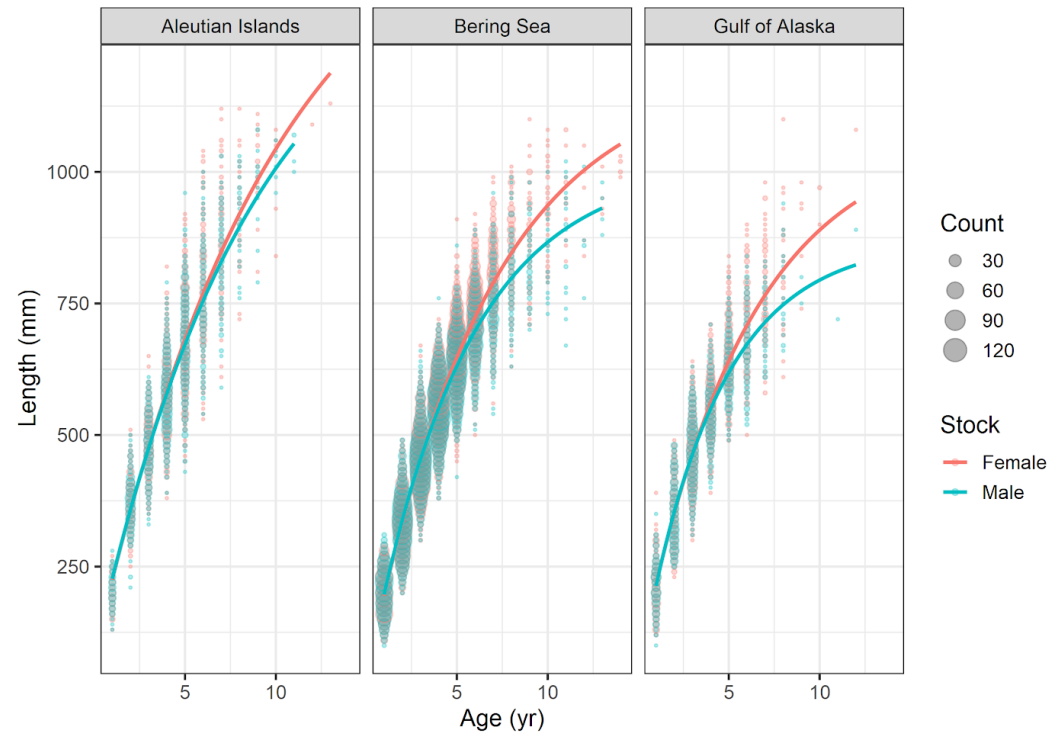




2026 Split-sex Model Exploration

- Differences in growth are apparent as are differences in sex ratio by size

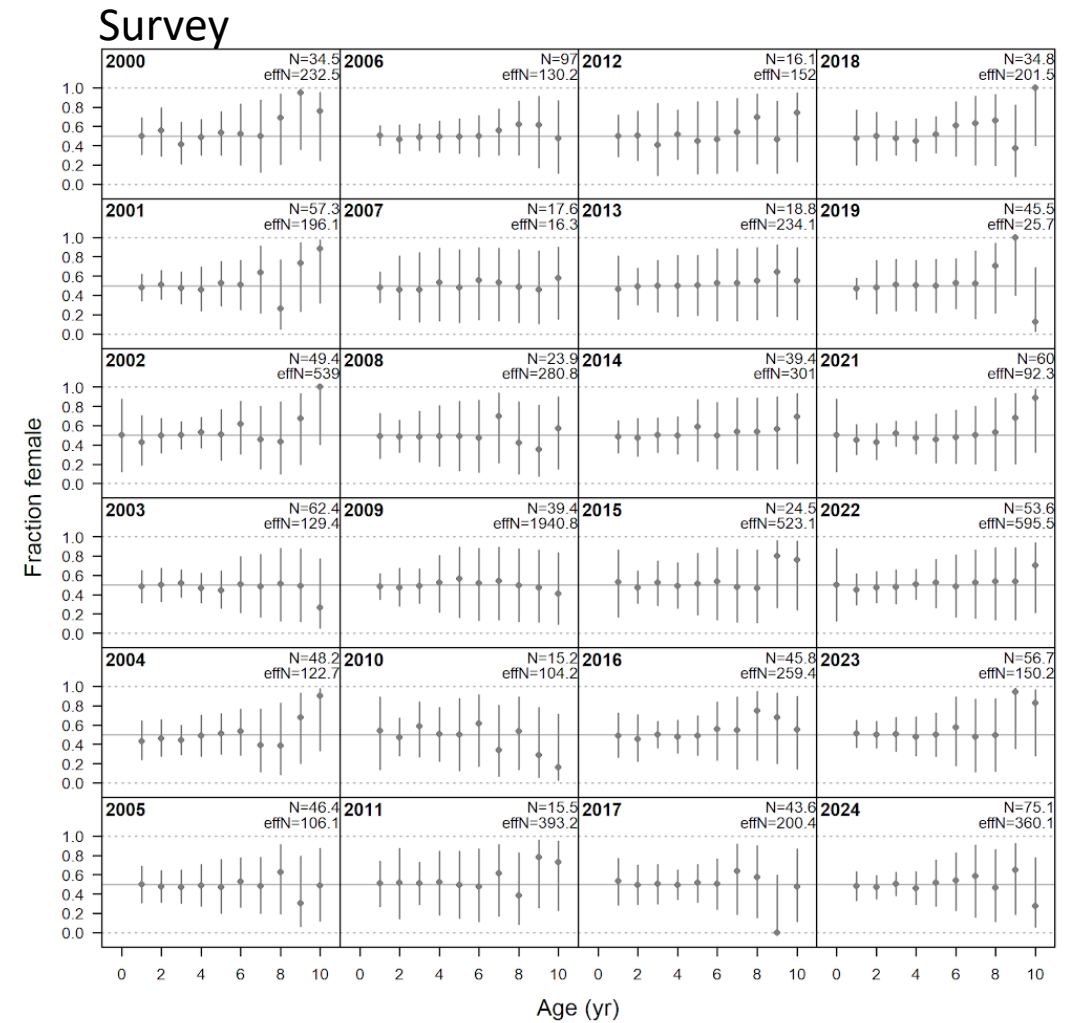
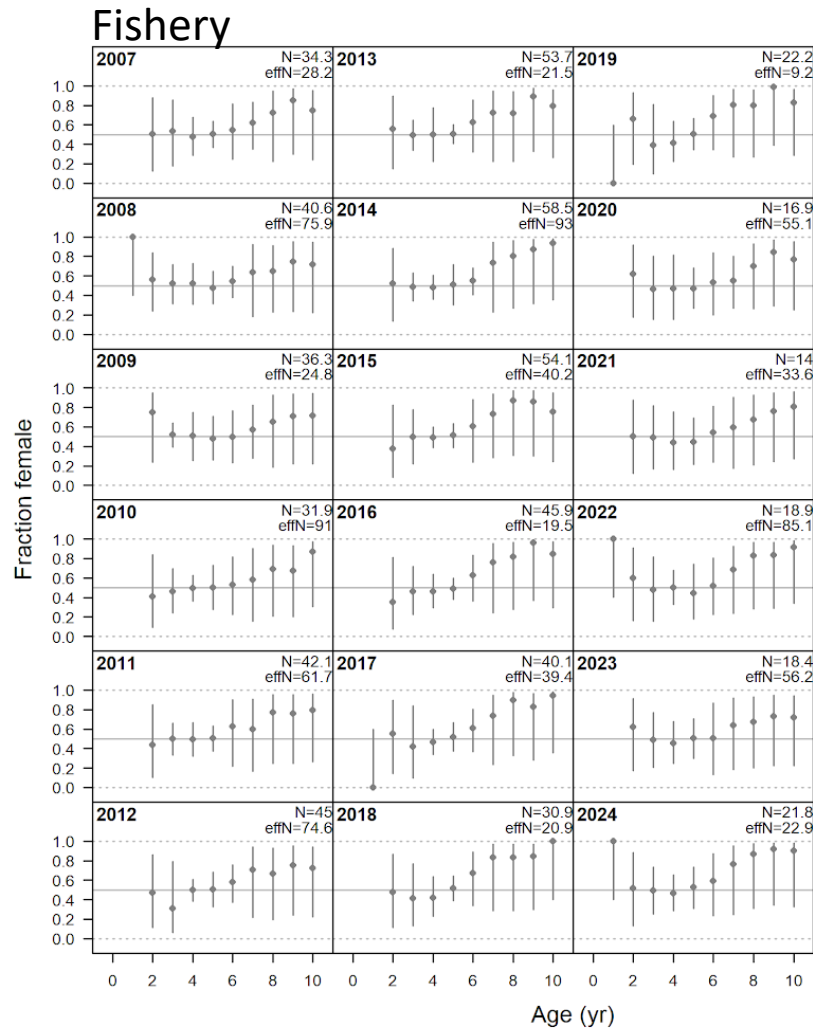
PACIFIC COD





2026 Split-sex Model Exploration

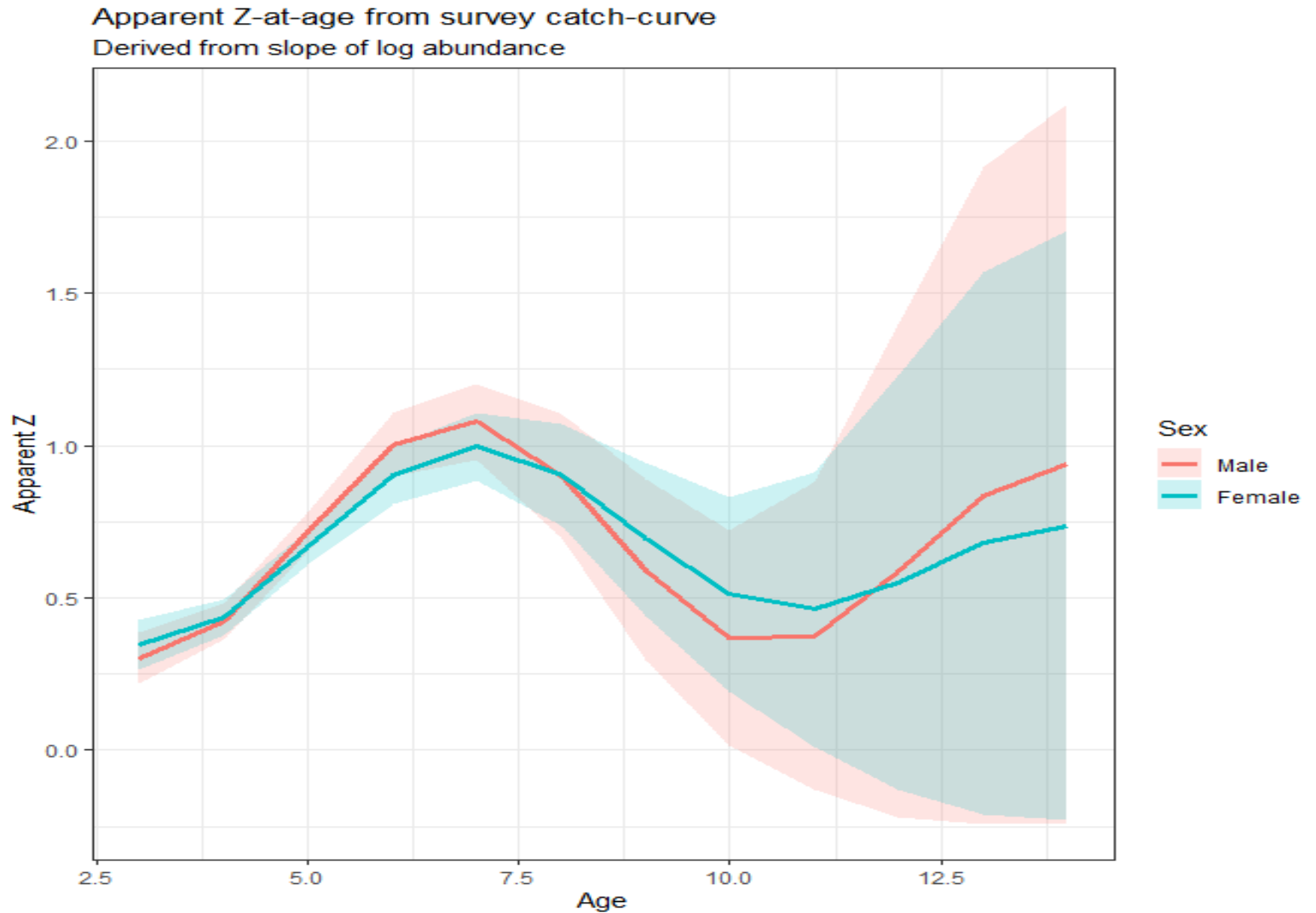
- Survey and fishery both show a trend with more females at older age





2026 Split-sex Model Exploration

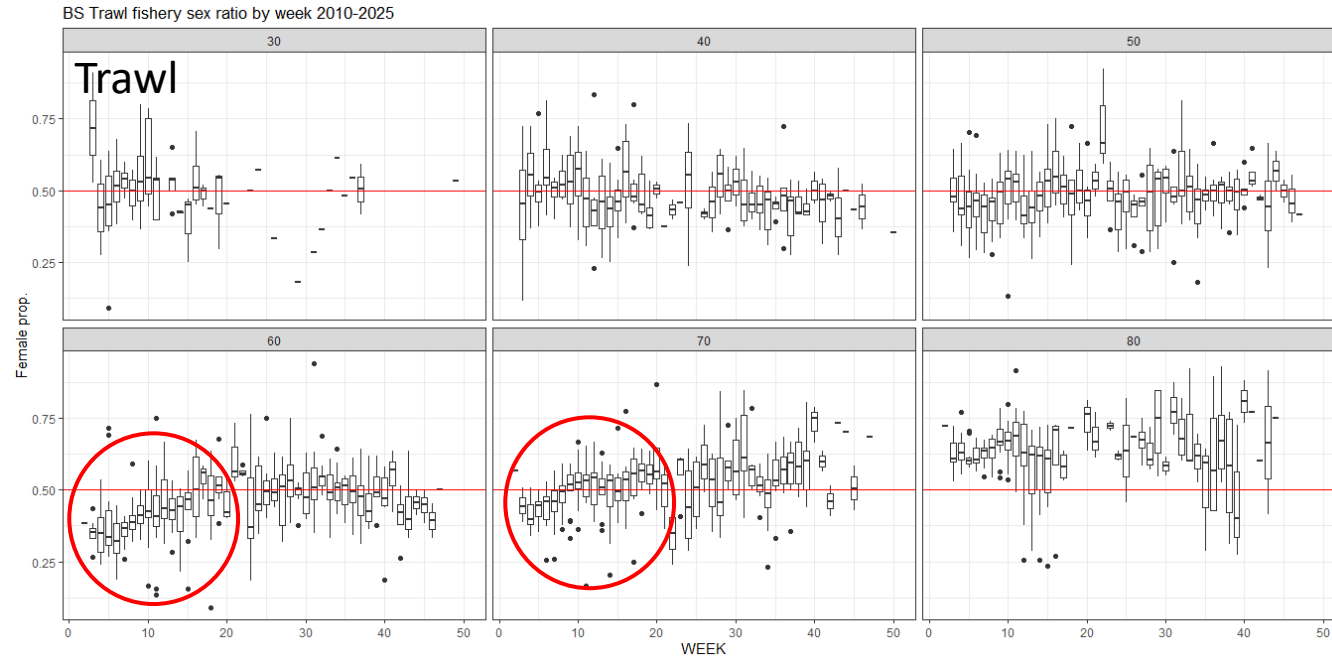
- Differences in overall mortality by sex for ages 5-7
- Fishing mortality or natural mortality?





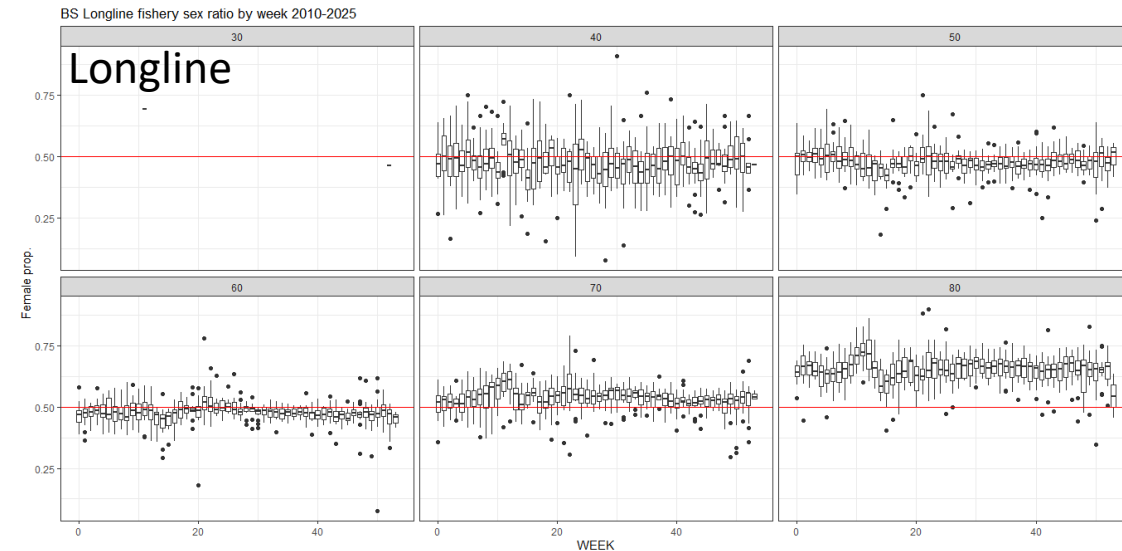
2026 Split-sex Model Exploration

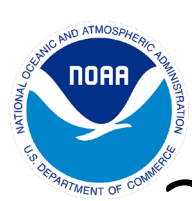
- Sex ratio by size and fishery by week of the year



- Trawl fishery shows strong trends in sex ratio by week for some size classes

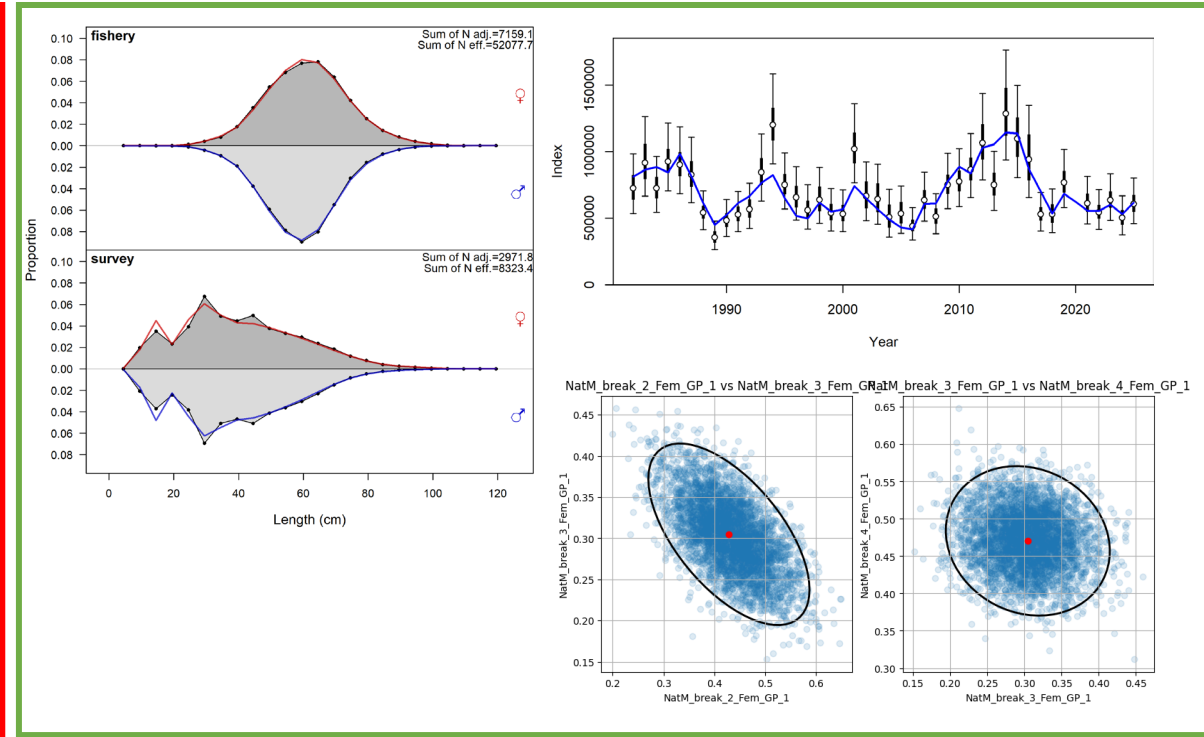
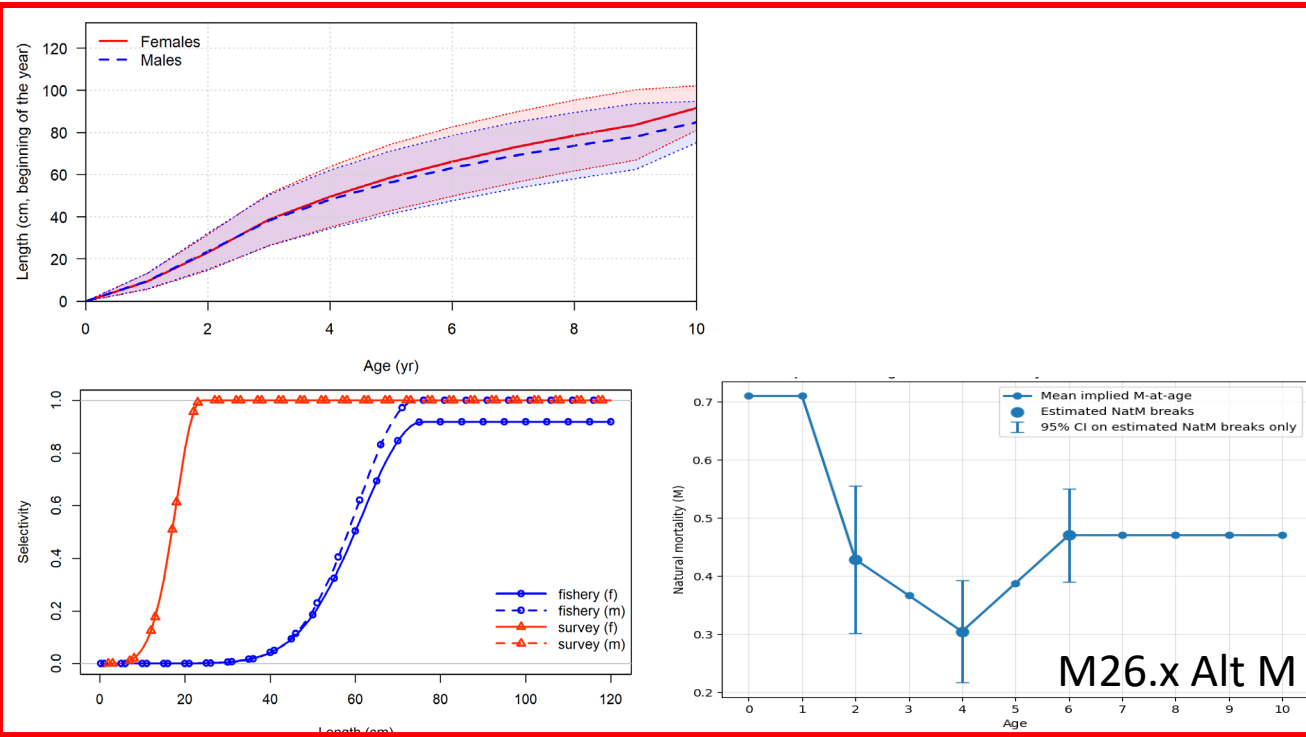
- Longline fishery shows differences in sex ratio by size but not by week





2026 Split-sex Model Exploration

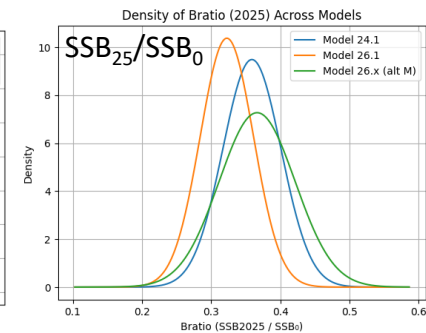
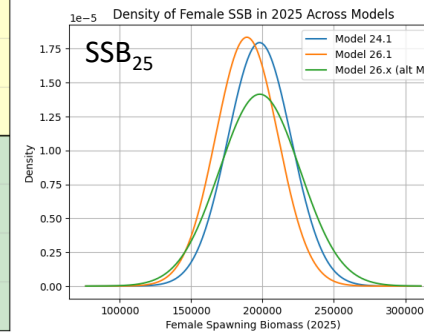
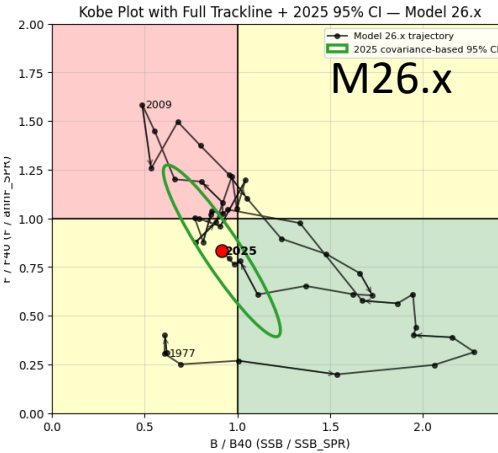
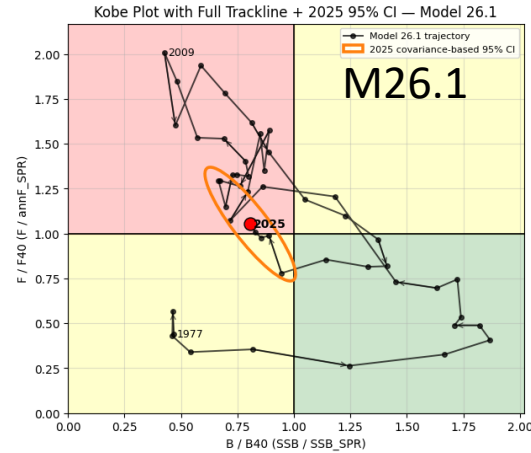
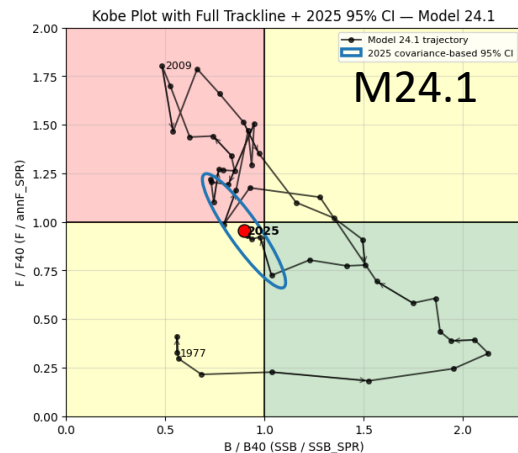
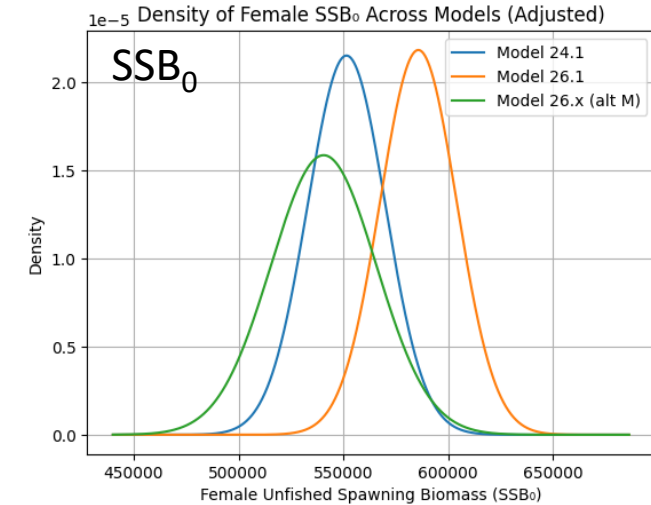
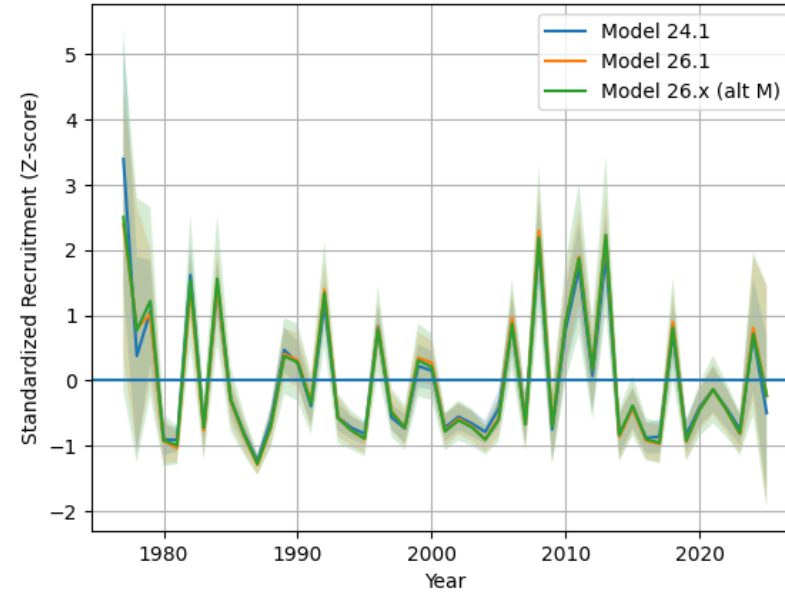
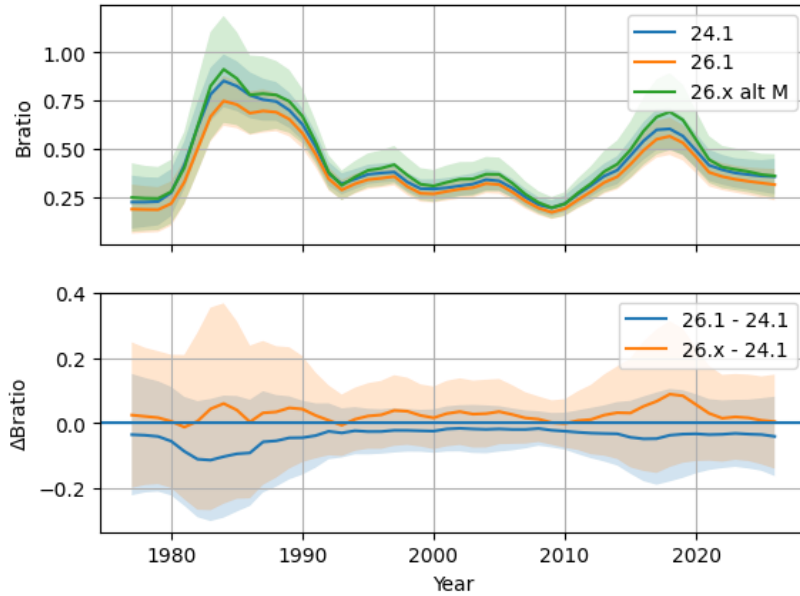
- New model in development
 - Split sex growth
 - Split sex selectivity
 - Alternate age-varying natural mortality (26.x alt M) with spawning mortality
- Initial explorations show slightly better fit to the length and age composition data

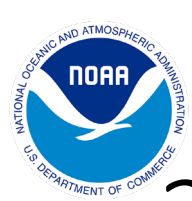




2026 Split-sex Model Exploration

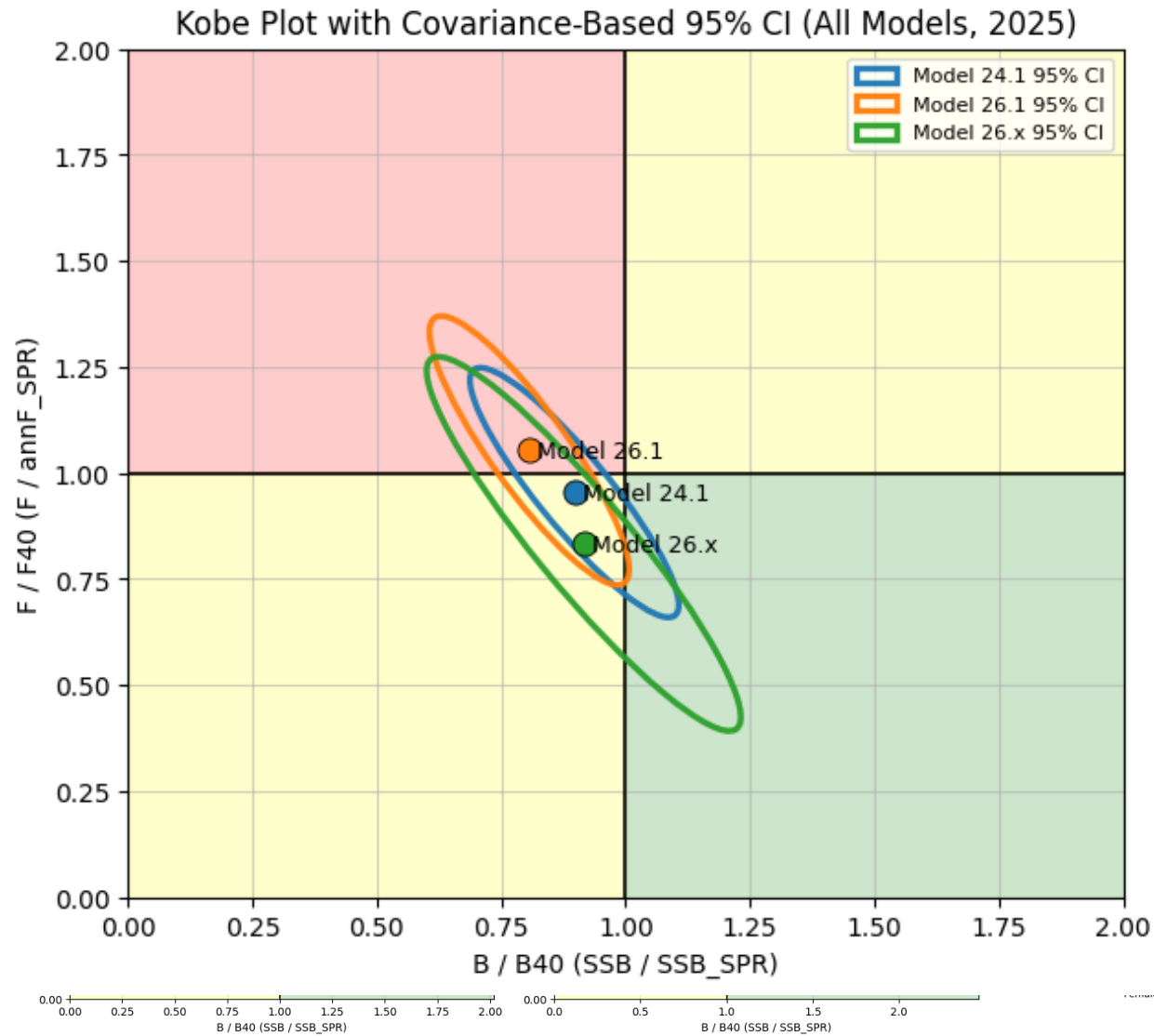
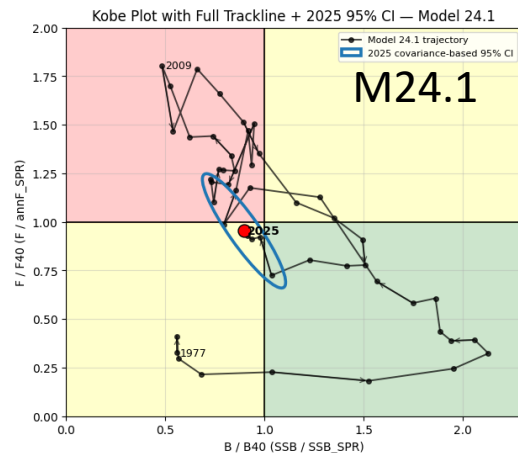
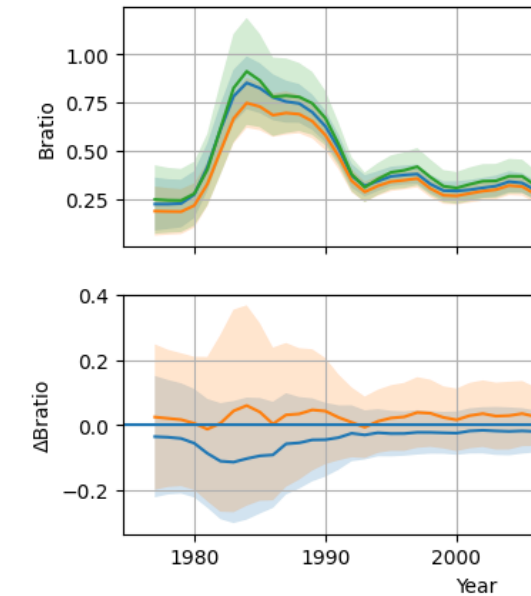
- Models result are very similar, but some key differences that matter.



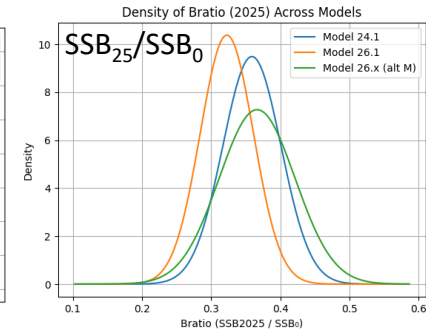
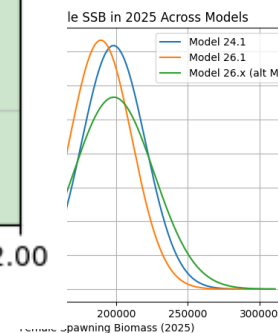
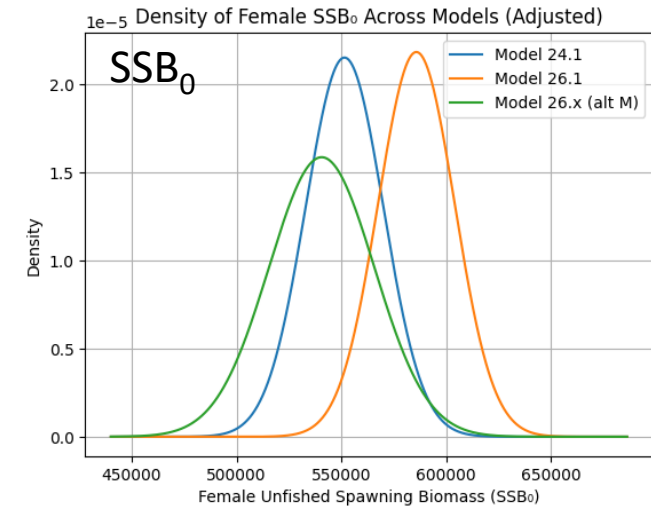


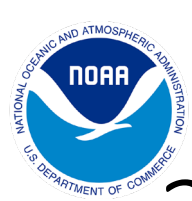
2026 Split-sex Model Exploration

- Models resu



matter.





2026 Assessment Plans

- EBS Pcod Model update – no new model for management
- For September research model exploration
 - Explore sensitivity to split-sex within current model
 - Explore sensitivity to age varying natural mortality and spawning mortality assumptions
 - Explore addition of fishery age composition and model sensitivity
 - Matt Cheng's research-oriented SPoRC spatial model with connections to the Western GOA