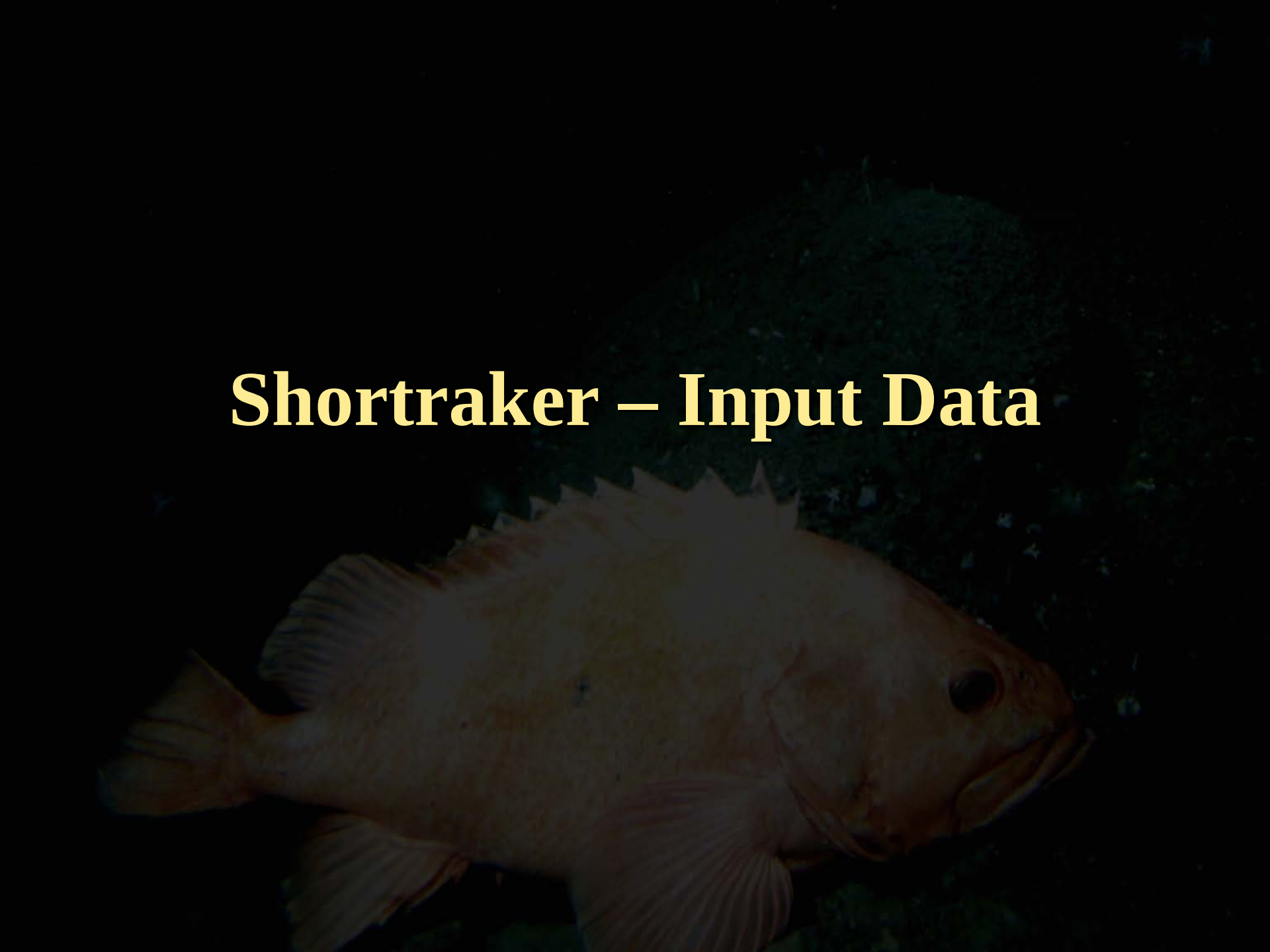
GOA Shortraker Rockfish

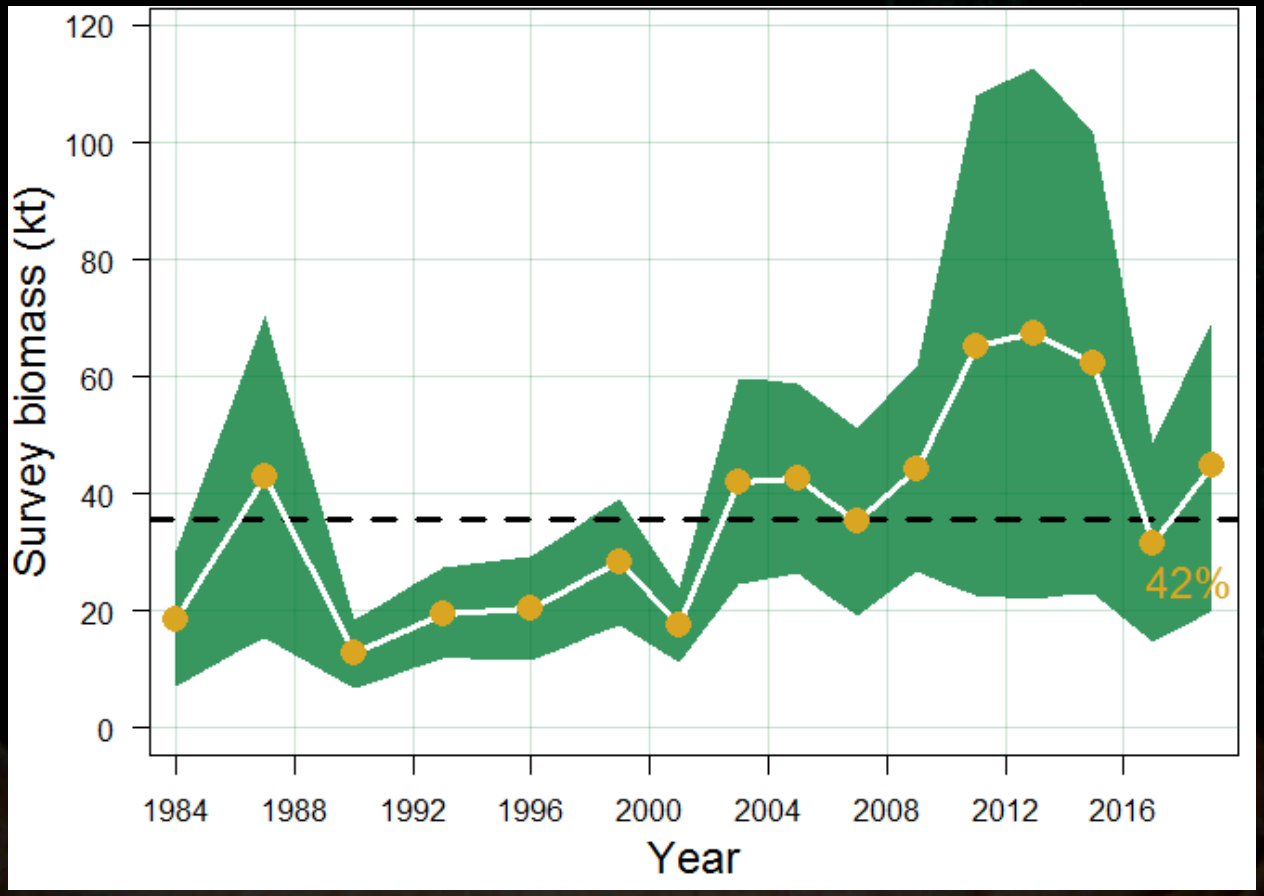
Katy, Pete

- Recommended model change: include LL survey RPW index into RE model
- Outline:
  - Input Data
  - Model Scenarios
  - Recommendations/Apportionment
  - Risk matrix

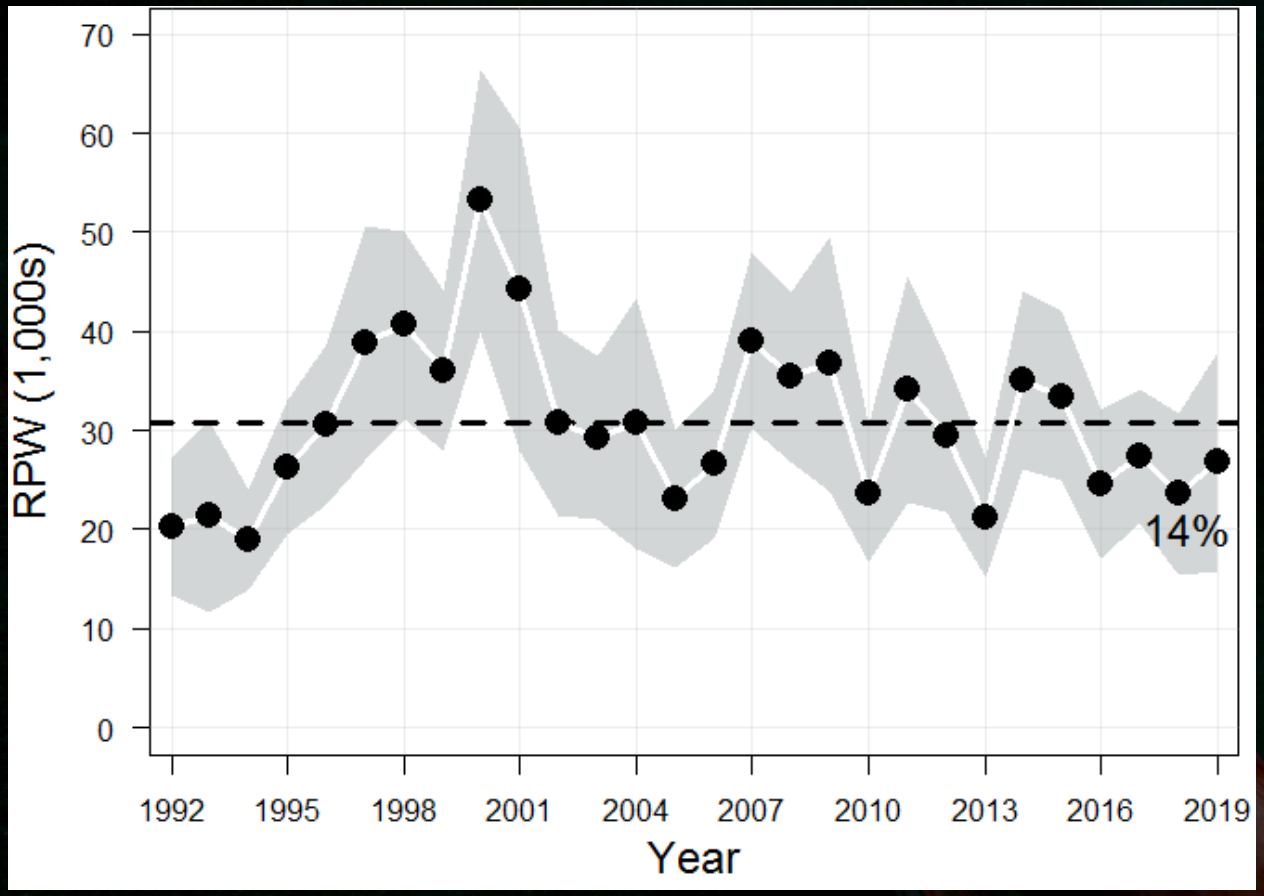
Shortraker – Input Data

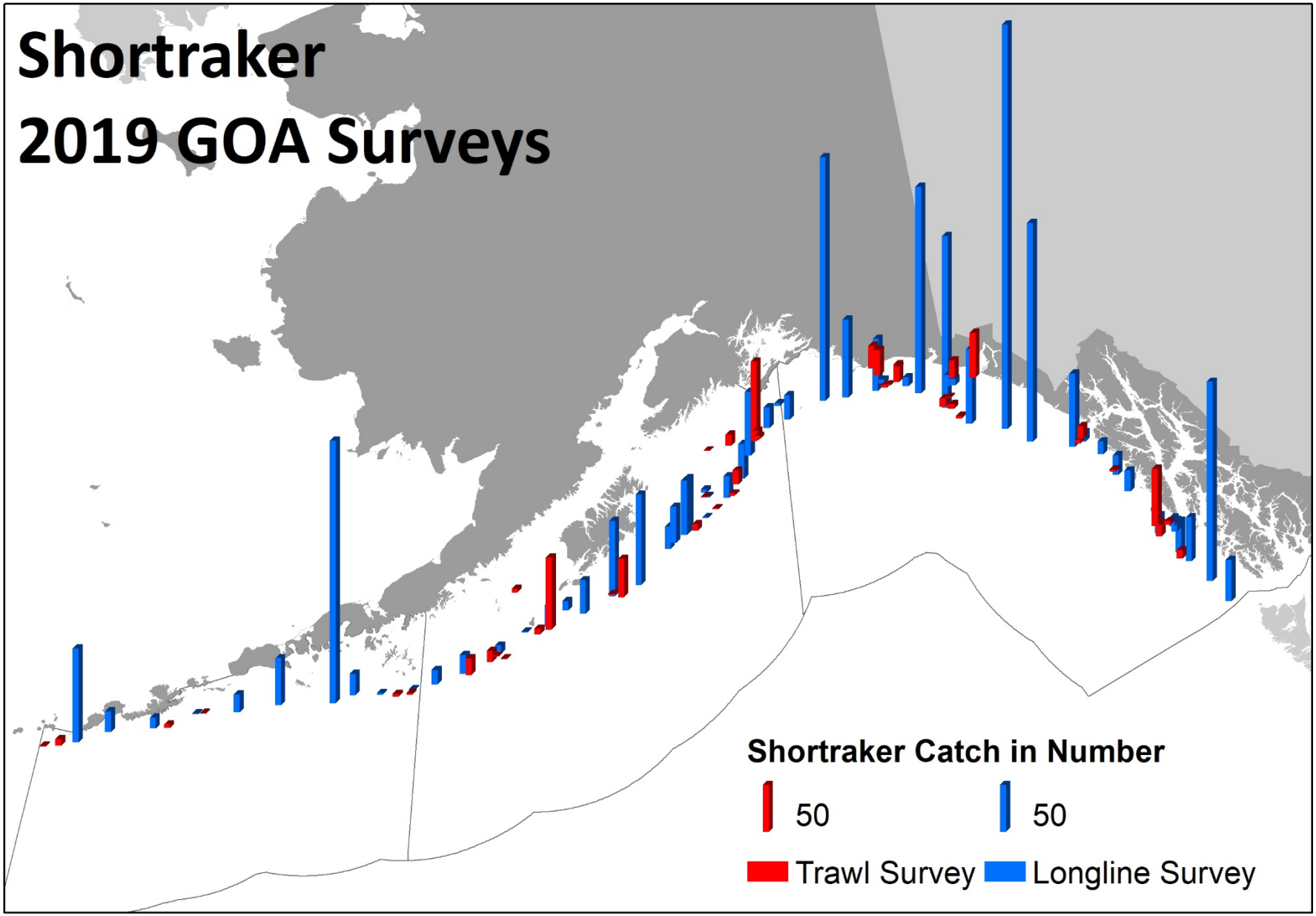


Shortraker :Trawl Survey Biomass

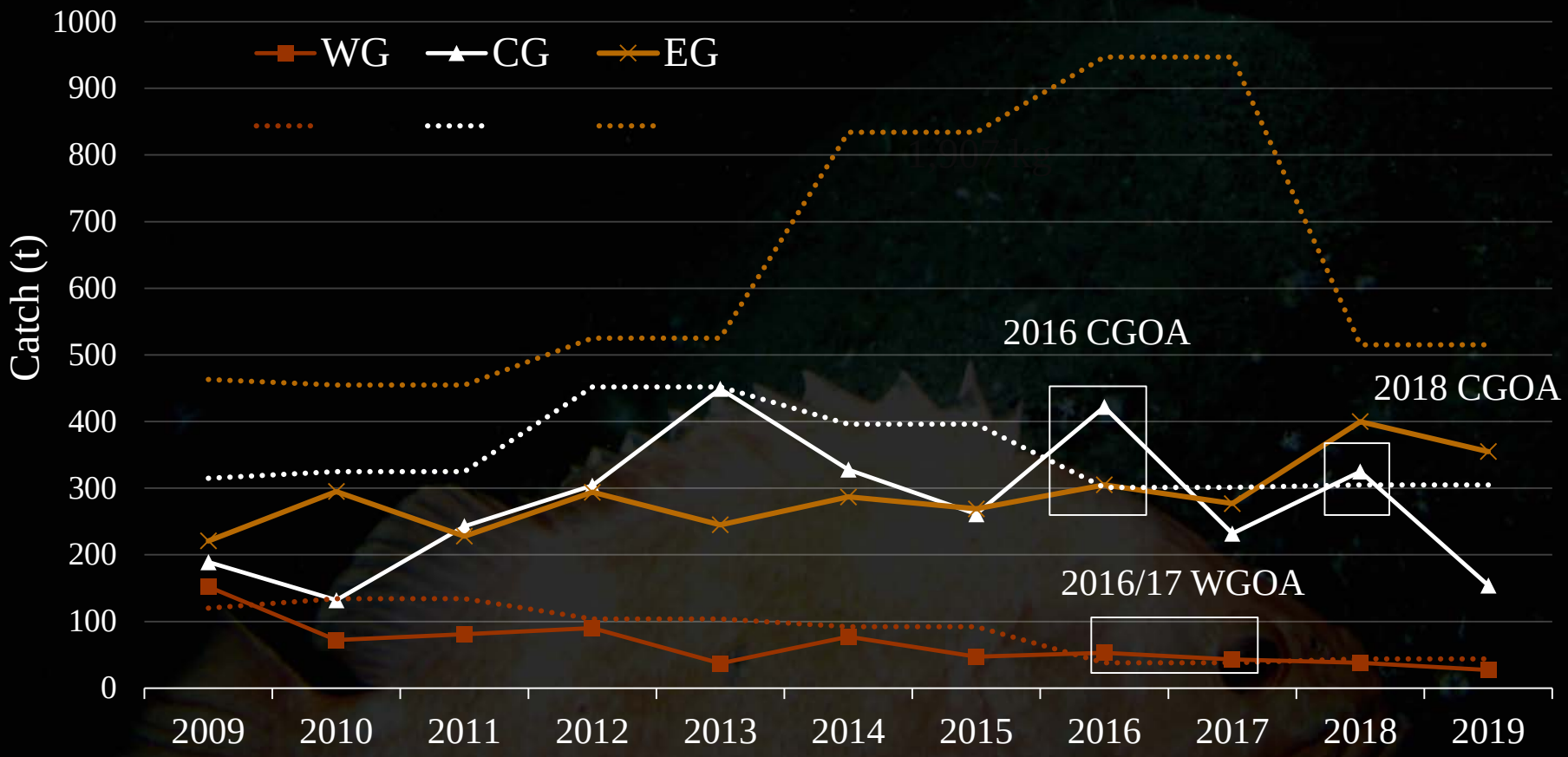


Shortraker: LL Survey RPWs

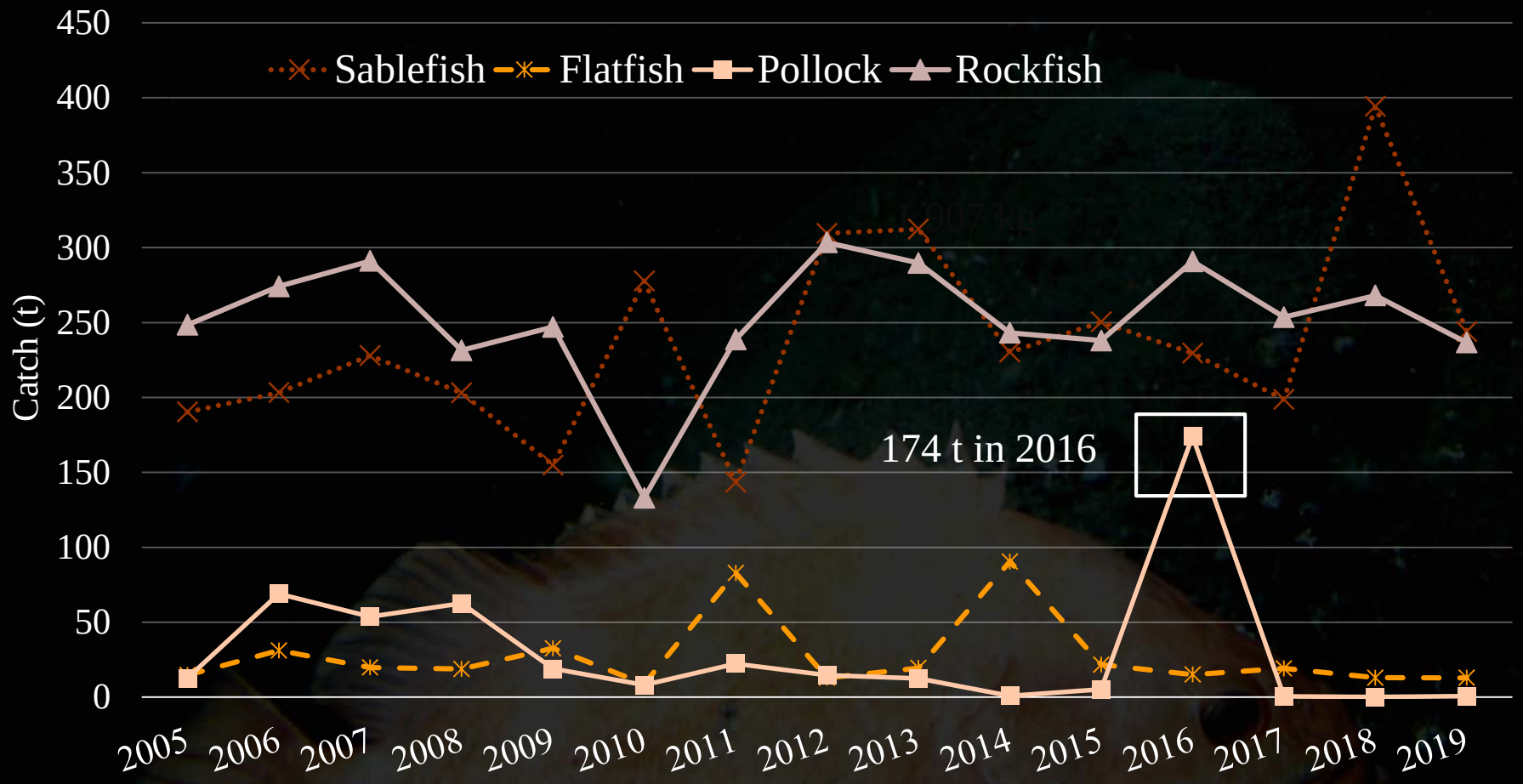



Shortraker
2019 GOA Surveys
Shortraker Catch in Number
50
50
Trawl Survey
Longline Survey

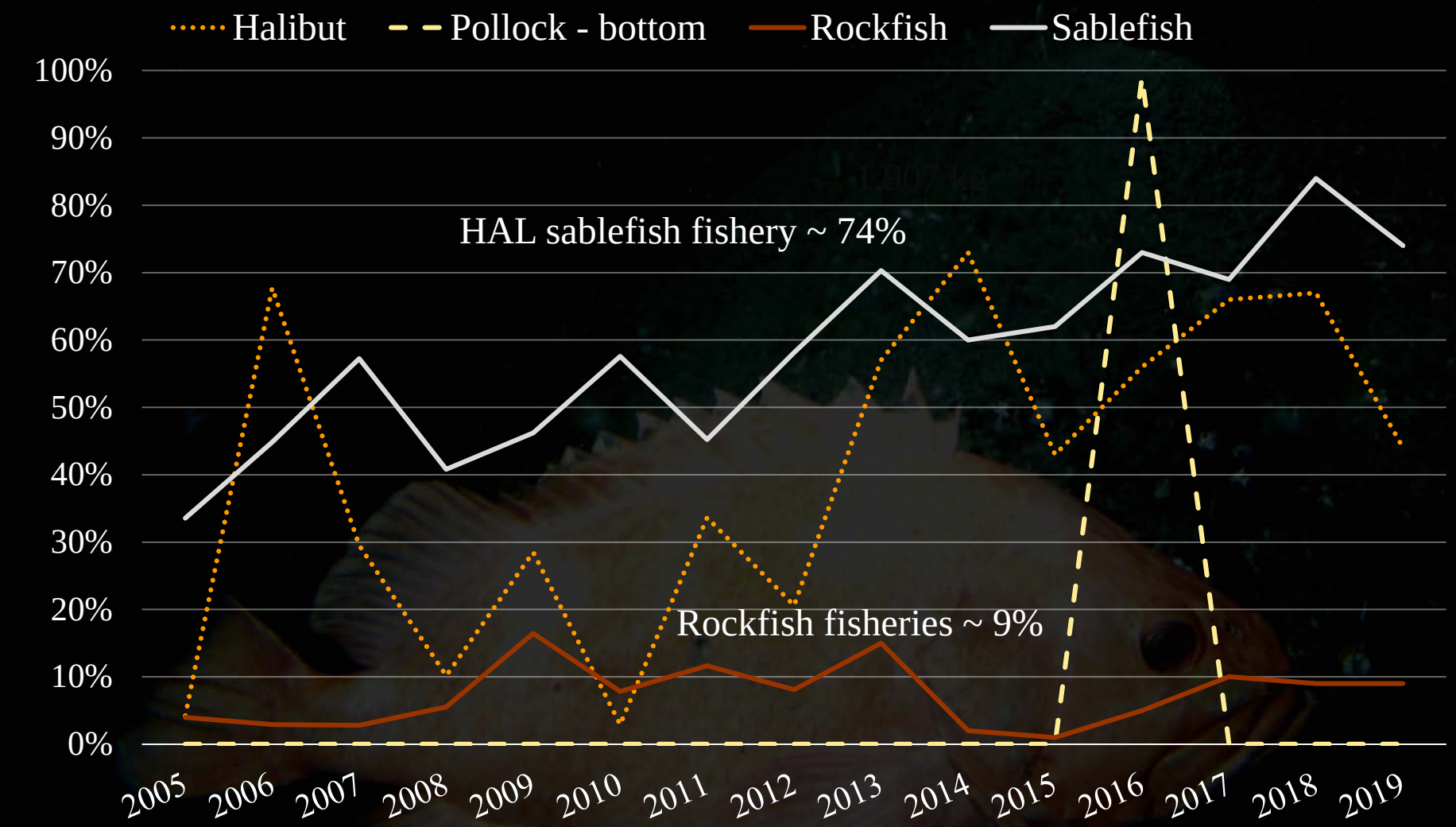
Shortraker: Catch by area



Shortraker: Catch by fishery



Shortraker: Discard rate by target fishery



Shortraker – Model Scenarios

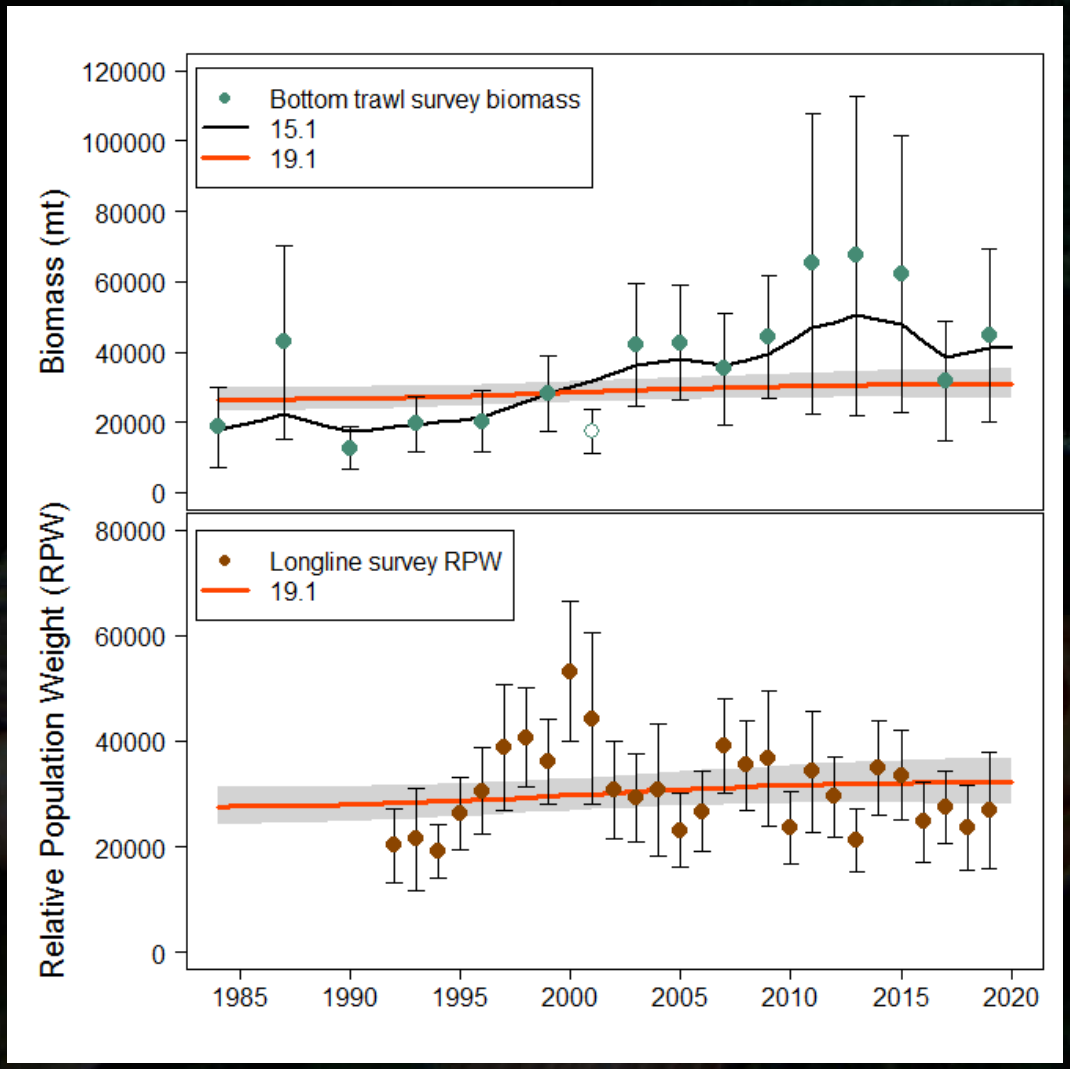
Model Scenarios

- 4 model scenarios evaluated this year:
  - Stepwise evaluation of results

Model case	Description
15.1	2015 model with data updated through 2019
19.1	15.1 with AFSC longline survey RPWs from 1992-2019 included as an additional population index
19.2	19.1 with relative catchability coefficients between the AFSC bottom trawl survey biomass and longline survey RPWs estimated by region
19.2a	19.2 with the AFSC longline survey RPW index weighted at 0.5 compared to the bottom trawl survey biomass

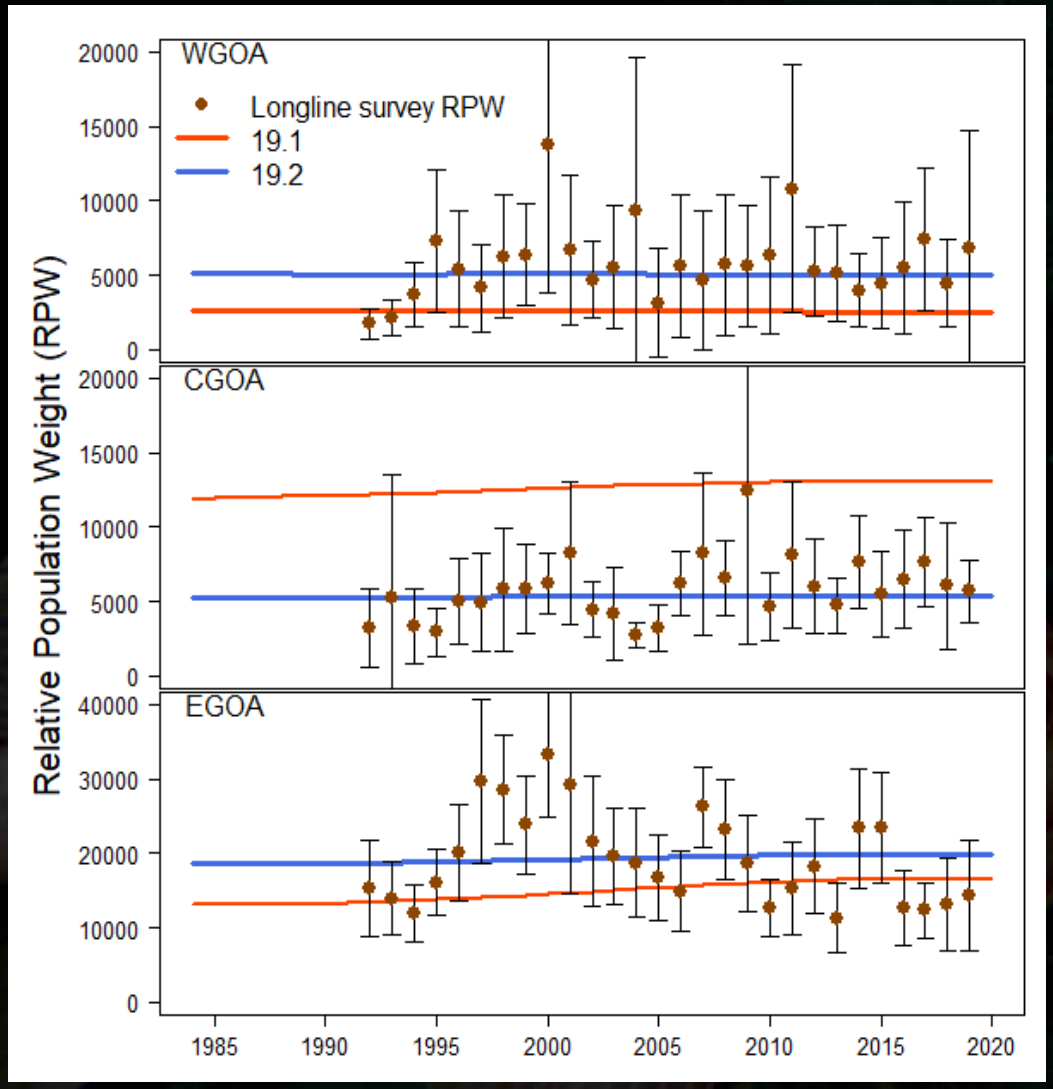
Model Scenarios

- 15.1 and 19.1



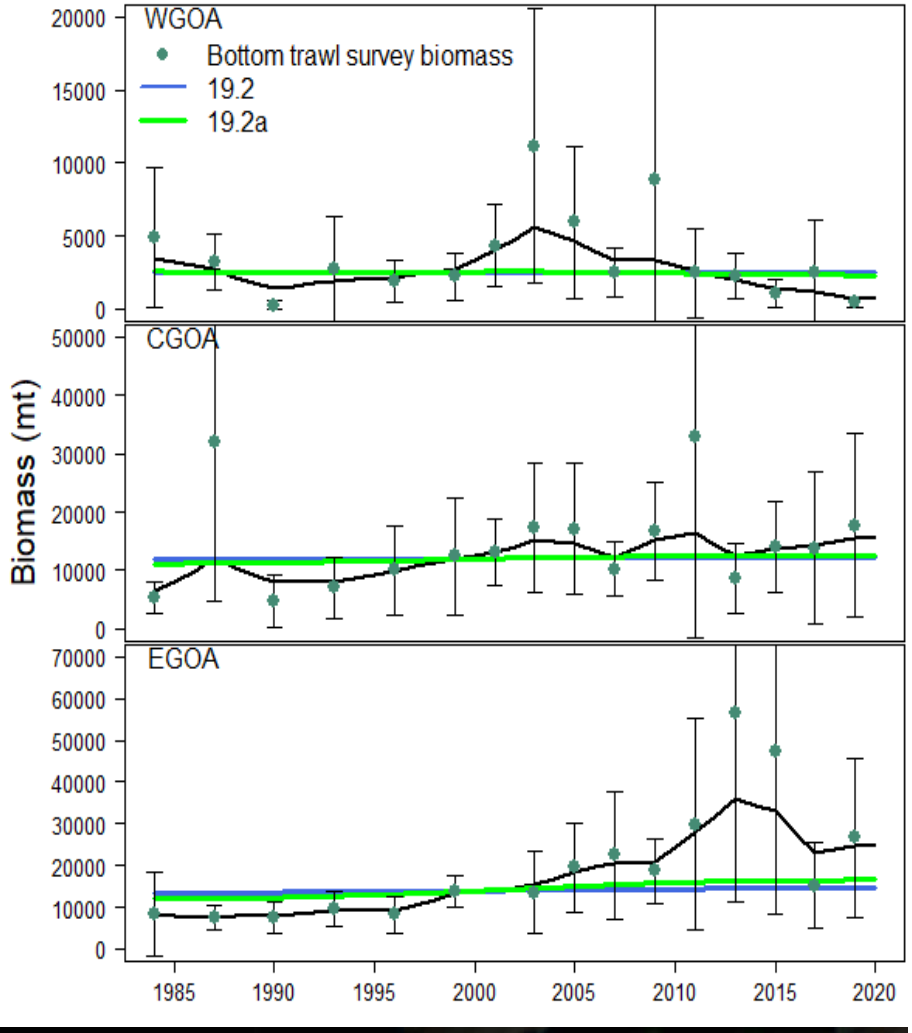
Model Scenarios

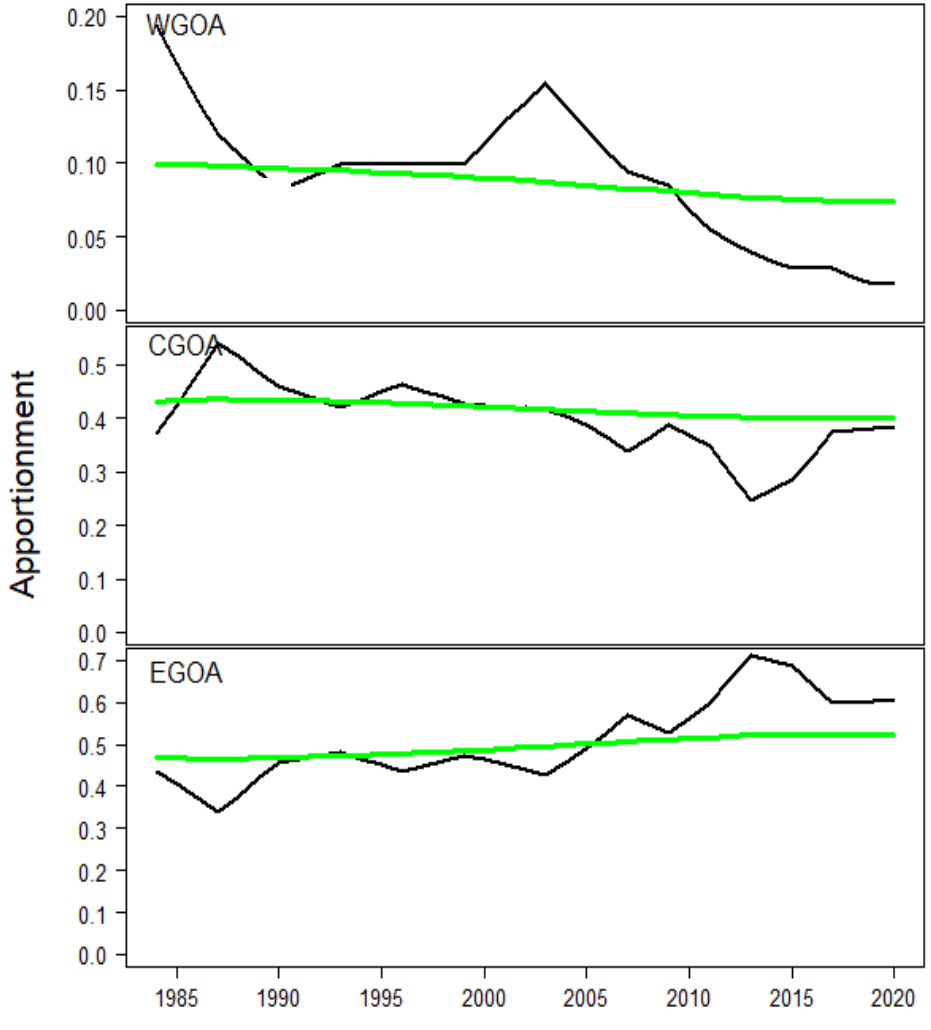
- 19.1 and 19.2



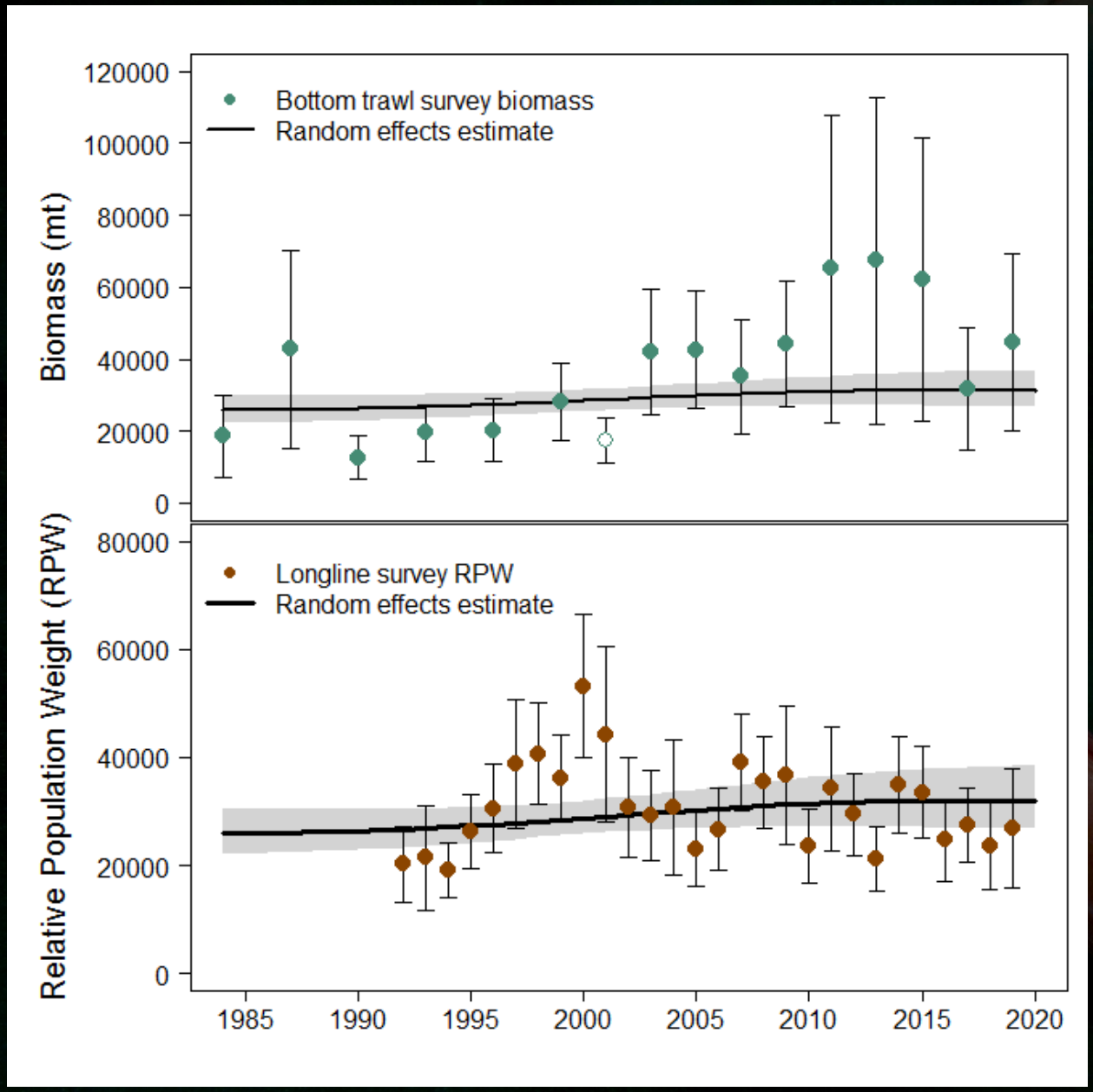
Model Scenarios

- 19.2 and 19.2a





Estimated Exploitable Biomass via Random Effects Model



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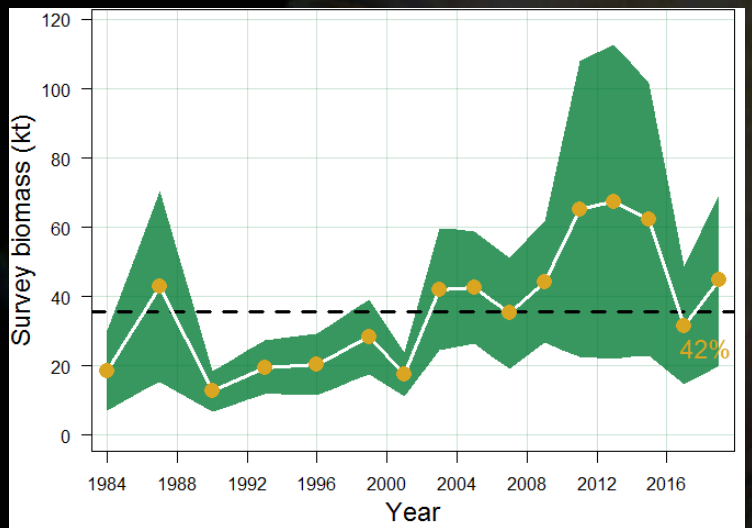
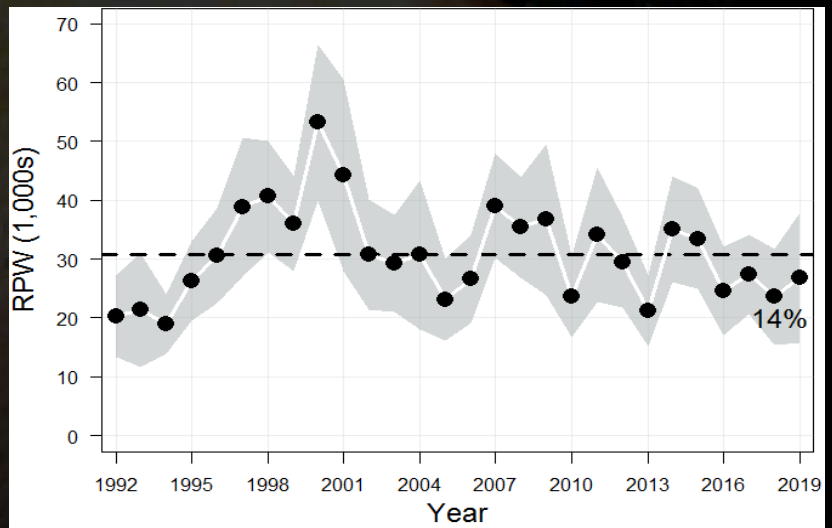
- **Recommend:** Model 19.2a
- 2020 exploitable biomass: 31,465
  - 18% decrease in expl biom from previous assessment
  - If recommended model was used in 2017, less than 1% decrease in expl biom





Shortraker – Recommendations/Apportionment

GOA Shortraker Summary

- Recommendations for 2020 (tier 5):
  - $F_{OFL} = M = 0.03$
  - B (exploitable biom.) = 31,465 t
  - **OFL** = 31,465 x 0.03 = **944 t**
  - $F_{ABC} = 0.75 * M = 0.0225$
  - **ABC** = 31,465 x 0.0225 = **708 t**
    - down from 863 t in 2018 & 2019

Shortraker Apportionment of ABC for 2020

Apportionment is based on random effects estimation of biomass by region, fit to 1984-2019 trawl survey biomass and 1992-2019 longline survey RPWs

- Western: 52 t (↑18%)
- Central: 284 t (↓7%)
- Eastern: 372 t (↓28%)

Shortraker – Risk Matrix

GOA Shortraker Summary

Assessment-related considerations	Population dynamics considerations	Environmental/ ecosystem considerations	Fishery Performance considerations	Overall score
Level 1: Normal	**Level 1**: Normal	**Level 1:** Normal	**Level 1:** Normal	**Level 1**: Normal

No need to reduce from maxABC

Thank You!

Huge thanks to Ellen Yasumiishi for contributing to the Environmental/Ecosystem Considerations