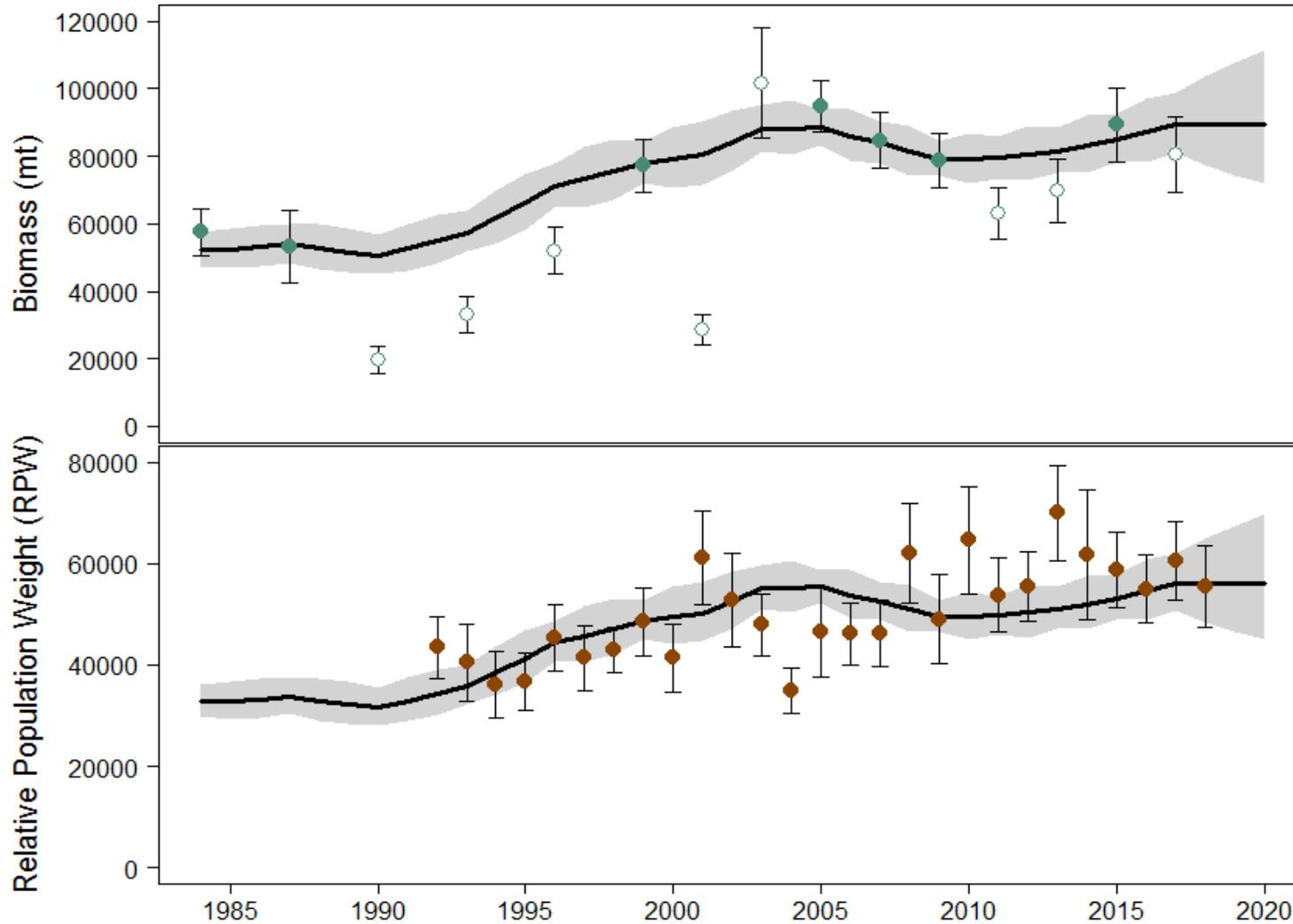


GOA Thornyhead Rockfish



- Tier 5 species – represented by SST (idiots)
- New Data:
 - 2017 trawl survey biomass
 - 1992 – 2018 longline survey RPWs
 - New exploitable biomass: **89,609 t** (1% decrease from 2017 estimate)
- Changes in Methodology:
 - Exploitable biomass estimation and harvest allocation were provided using the random effects model, fit to the AFSC LL survey RPW index (1992-2018) AND the AFSC bottom trawl survey biomass index (1984-2017) by region and depth strata (0 – 500 m, 501 - 700 m, and 701 – 1,000 m)
- Catch Update (October 10, 2018)
 - 2018 **catch up 9%** from 2017
 - This is ~54% of gulfwide ABC

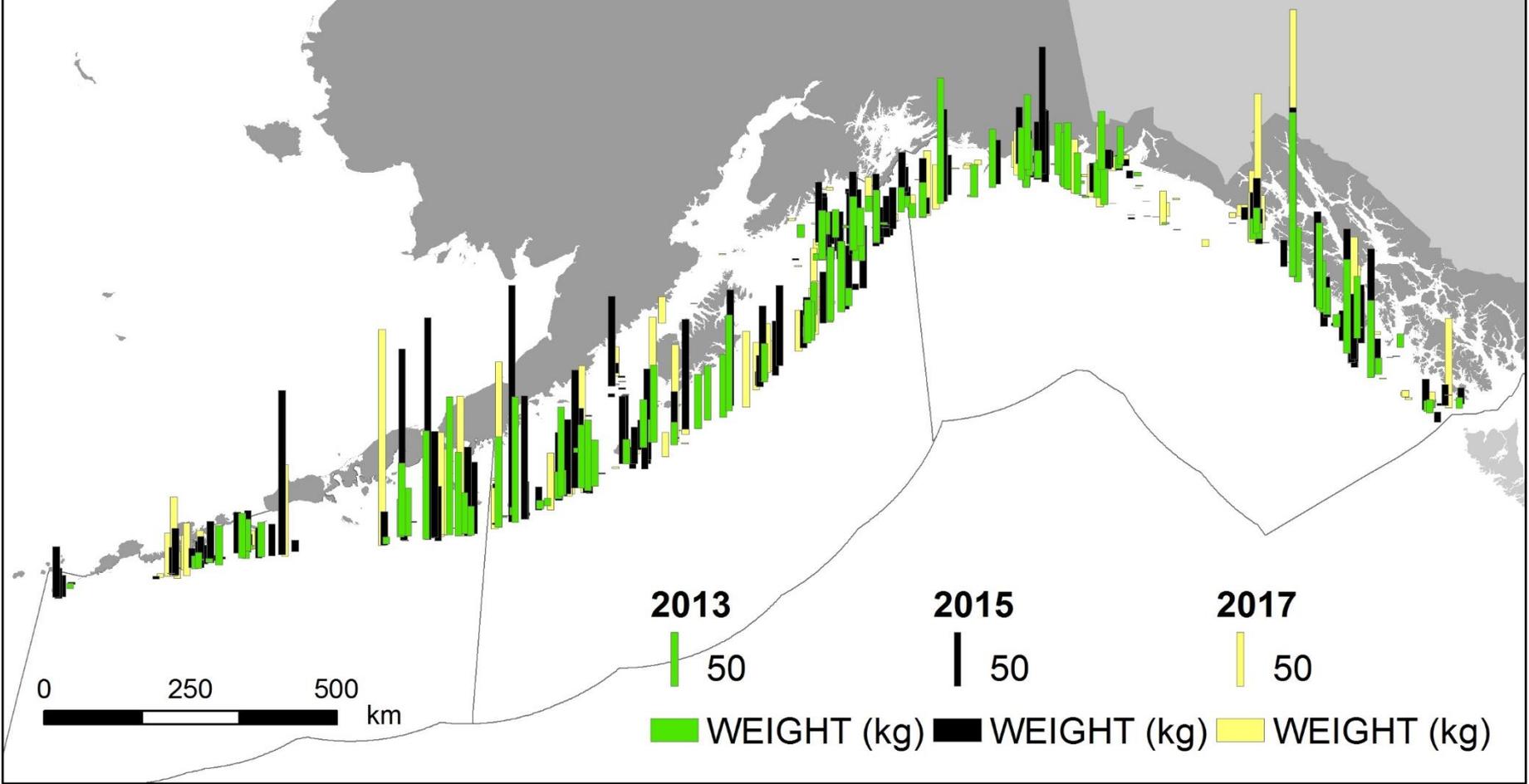
Estimated Exploitable Biomass via Random Effects Model



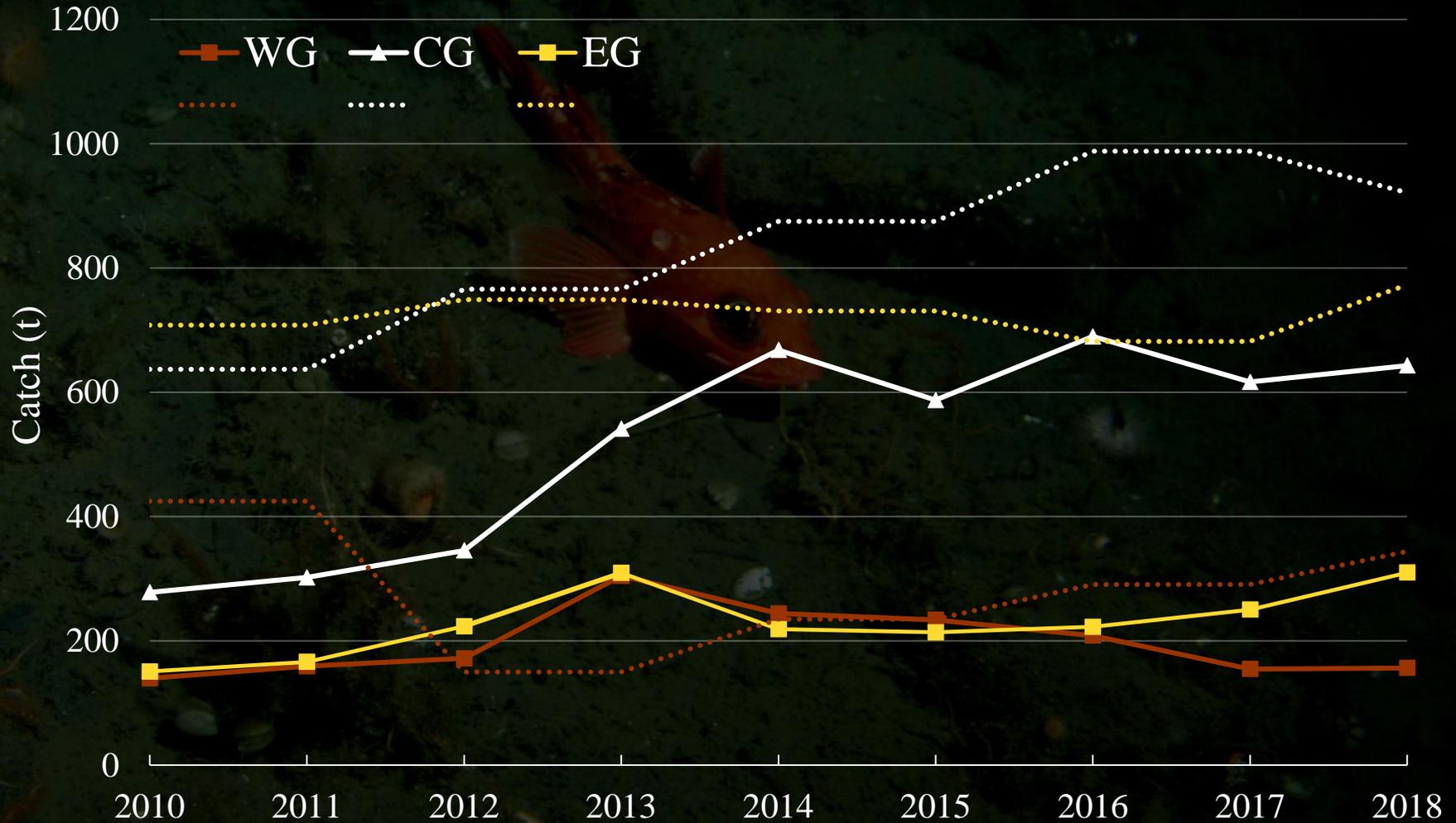
Trawl
survey
biomass
↓ 10%

LL Survey
RPW
↓ 13%

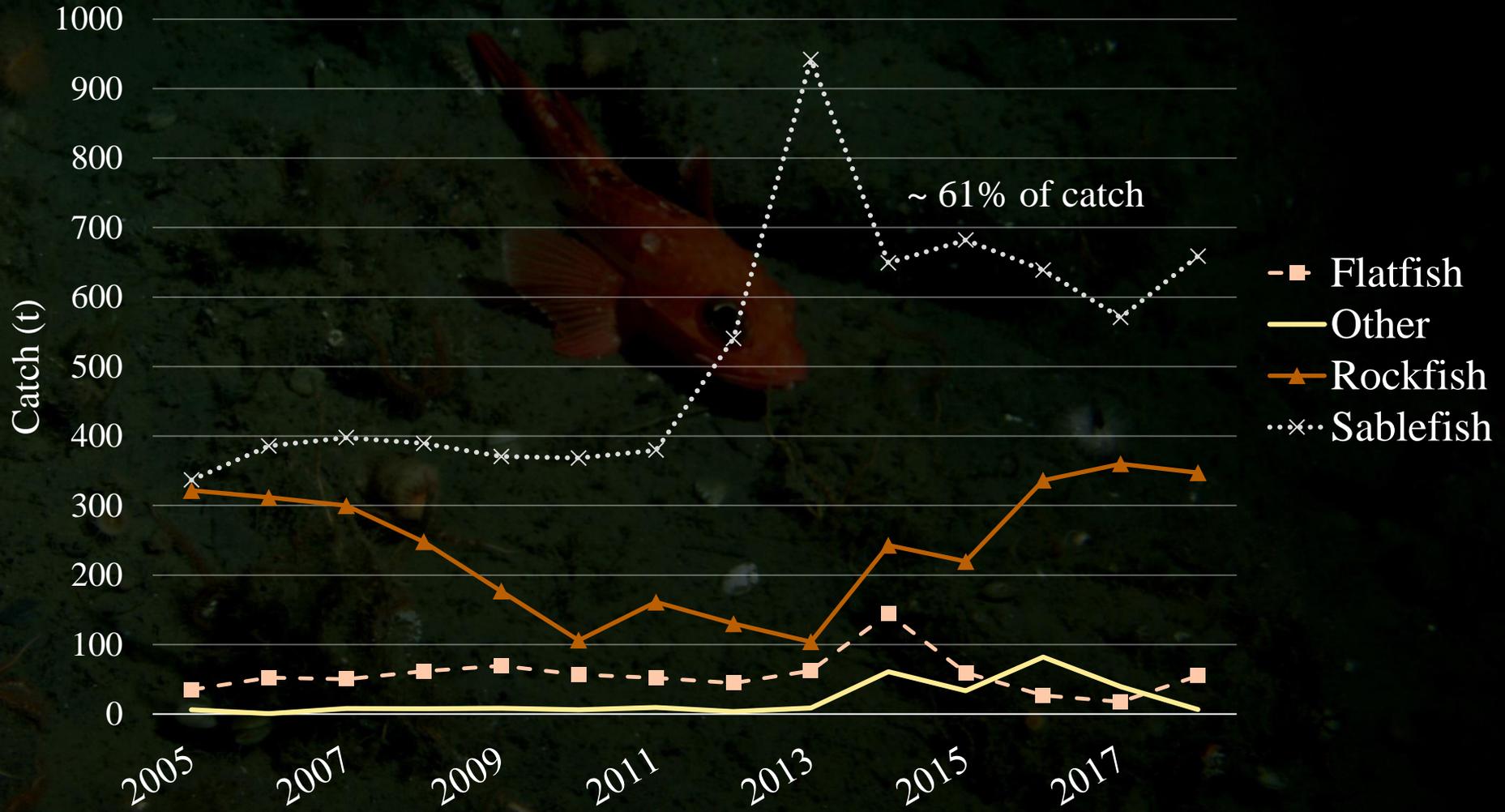
Thornyhead: Most Recent Trawl Surveys



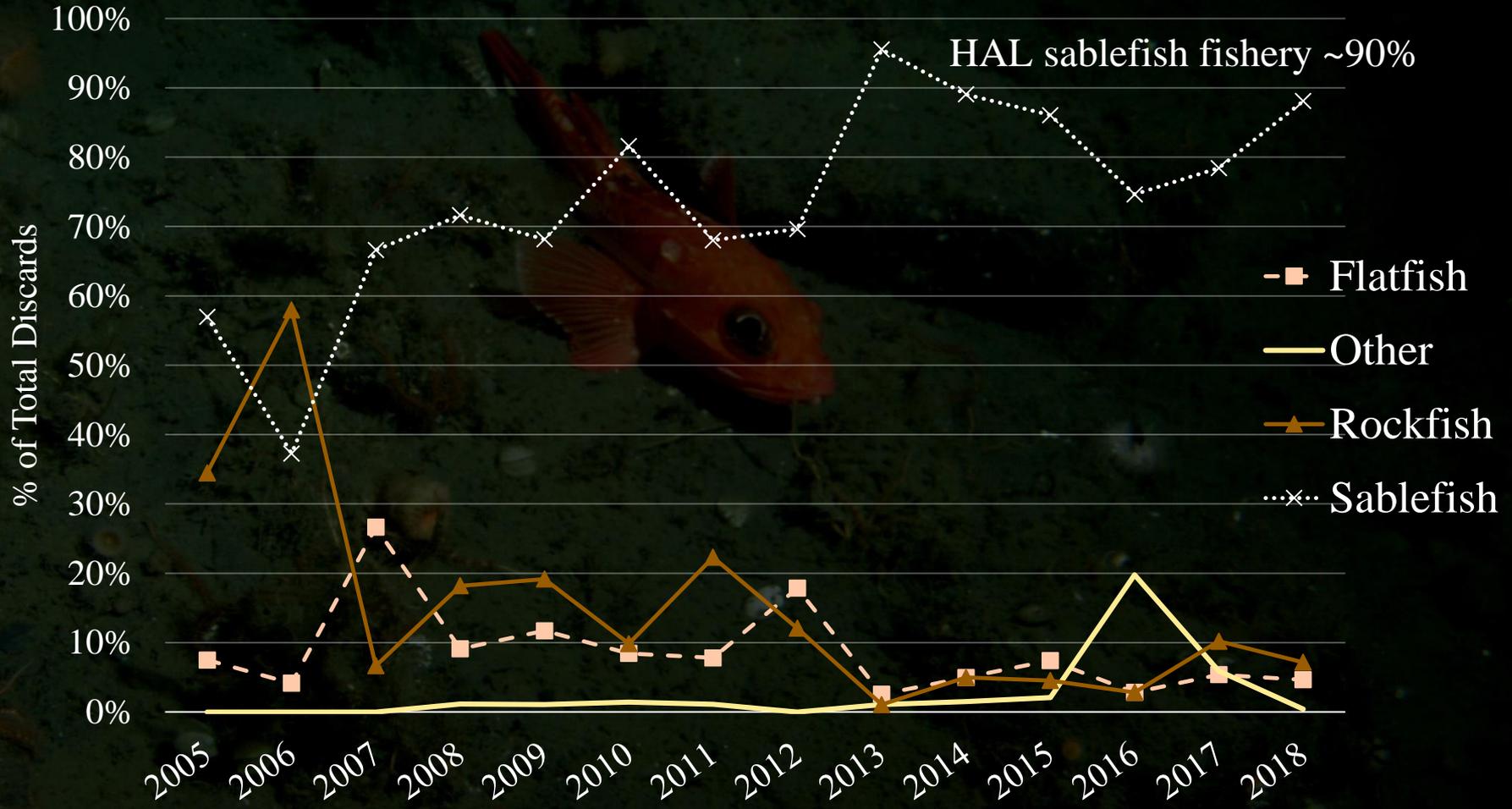
Thornyhead: Catch by area



Thornyhead: Catch by Fishery



...noted the high discard rates for thornyheads over the last four years and requested the author investigate these (GOA Plan Team Nov 2015, SSC Dec 2015).



Time Series of Discard Rates of TH by Target Fishery

GOA Thornyhead Summary



- GOA thornyhead recommendations for 2019 (tier 5):
 - $F_{OFL} = M = 0.03$
 - B (exploitable biom.) = 89,609 t
 - **OFL** = 89,609 x 0.03 = **2,688 t**
 - $F_{ABC} = 0.75 * M = 0.0225$
 - **ABC** = 89,609 x 0.0225 = **2,016 t**
(↓1.1% from 2,038 t in 2018)

Thornyhead: Apportionment of ABC for 2019



Apportionment is based on random effects estimation of biomass by region, fit to 1984-2017 trawl survey biomass estimates and the 1992-2018 LL survey RPW estimates

- Western: 326 t (↓ 5%)
- Central: 911 t (↓ 1%)
- Eastern: 779 t (↑ 1%)