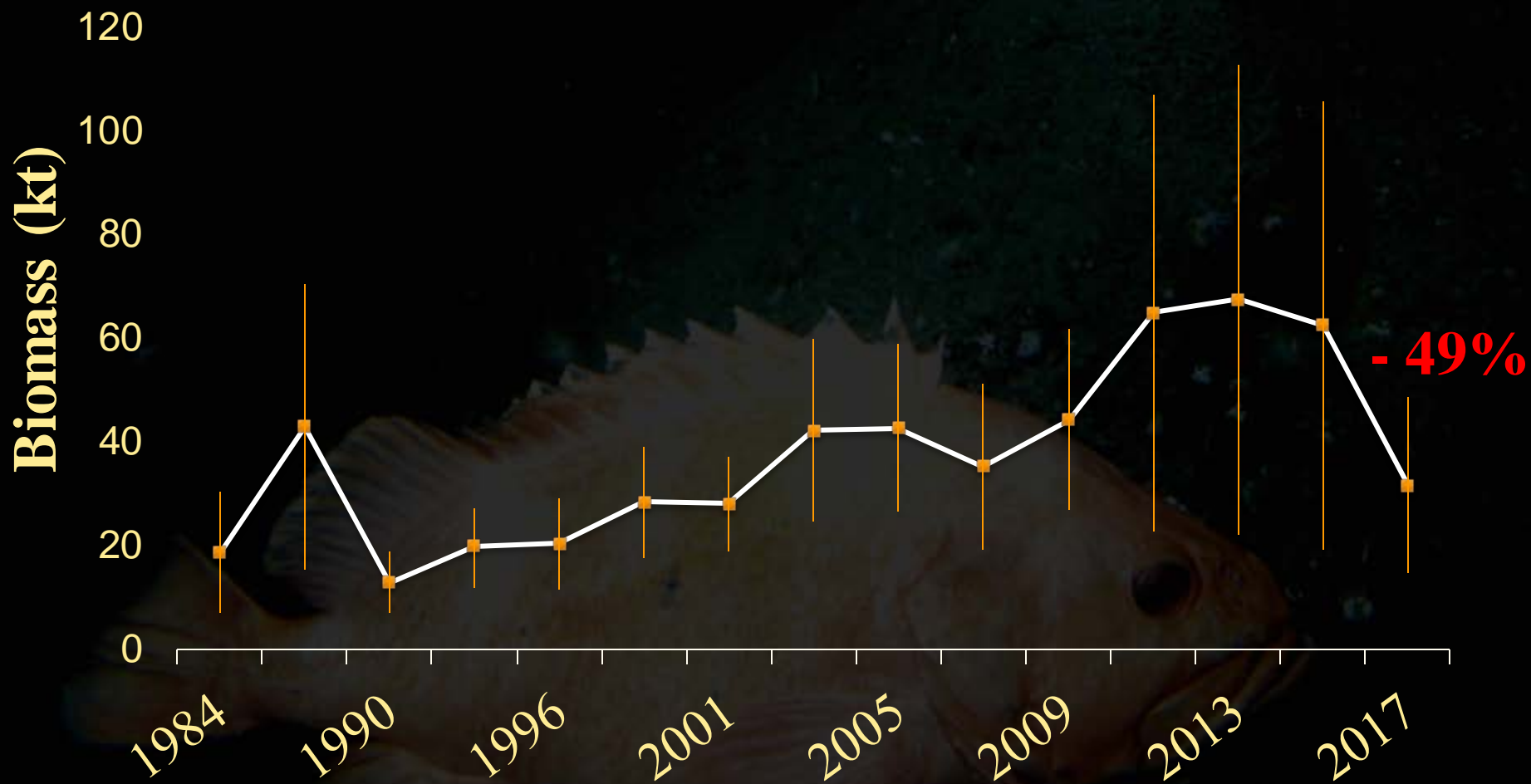


# GOA Shortraker Rockfish



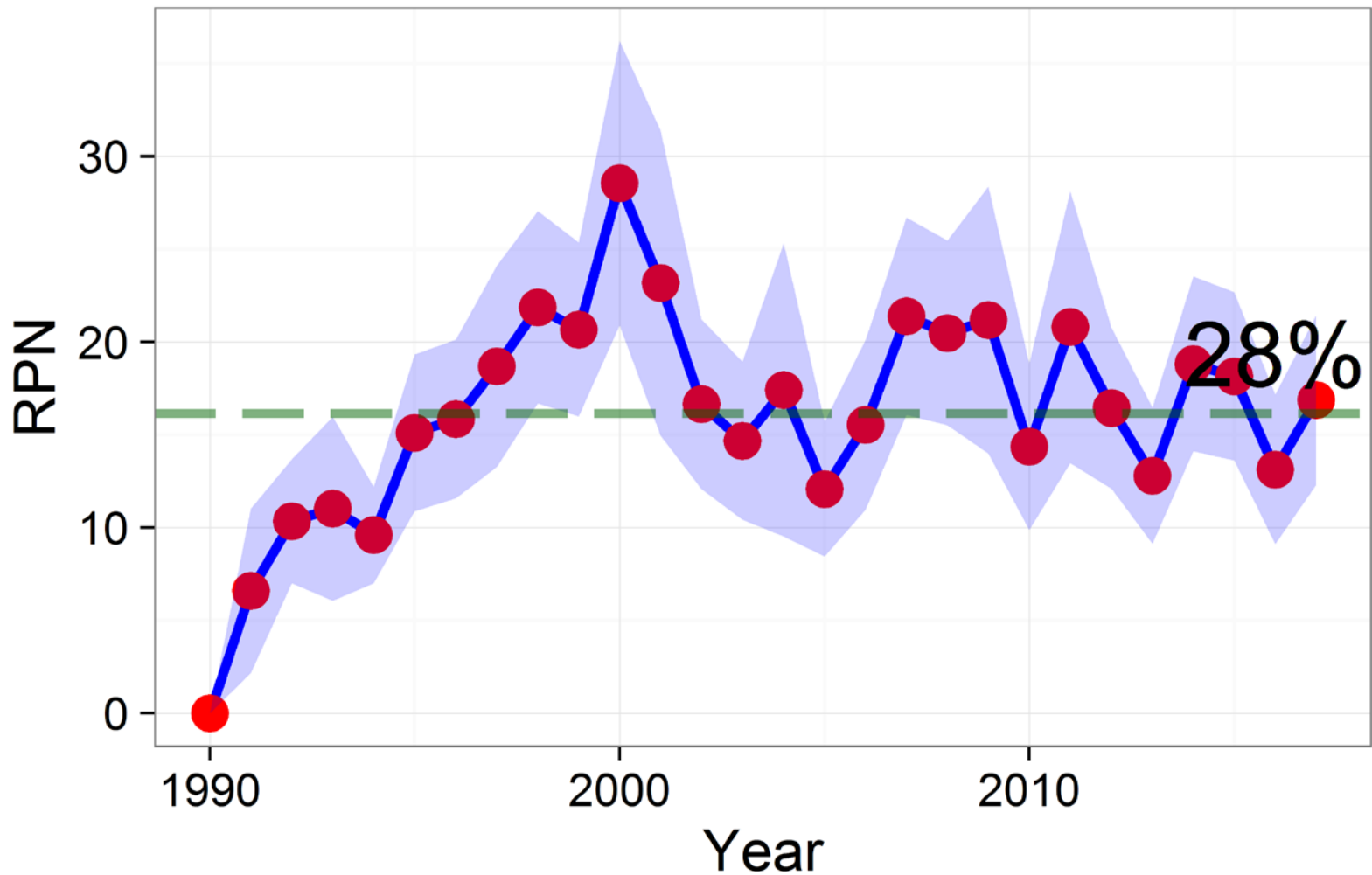
- New data: 2017 trawl survey biomass
- Shortraker: Tier 5
  - Exploitable biomass estimation and harvest allocation were provided using the random effects model, fit with 1984-2017 trawl survey biomass and uncertainty estimates
  - New exploitable biomass: 38,361 t
  - 33% decrease in exploitable biomass from previous estimate in 2016 assessment

# Shortraker :Trawl Survey Biomass

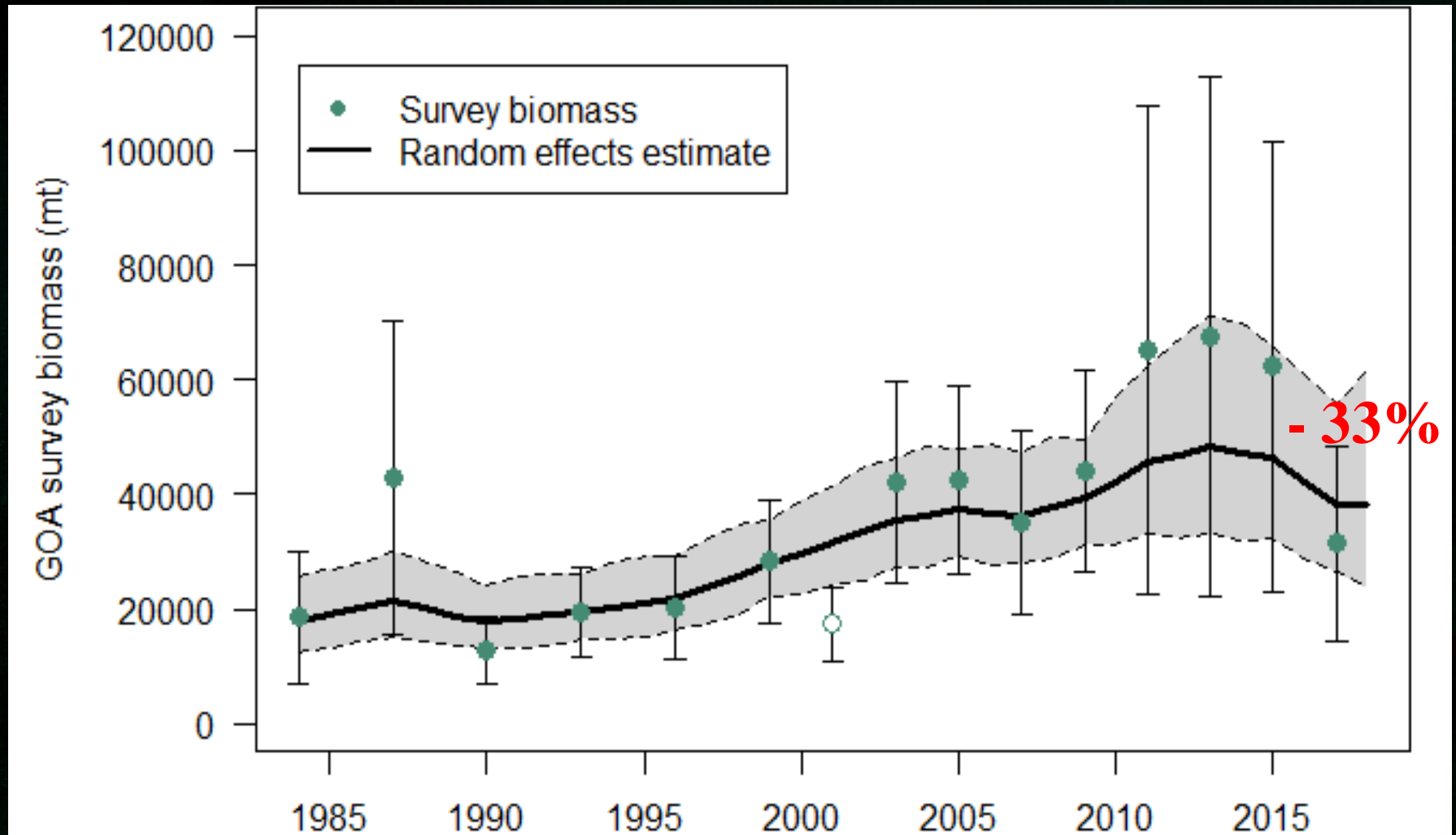


# Shortraker: LL Survey RPNs

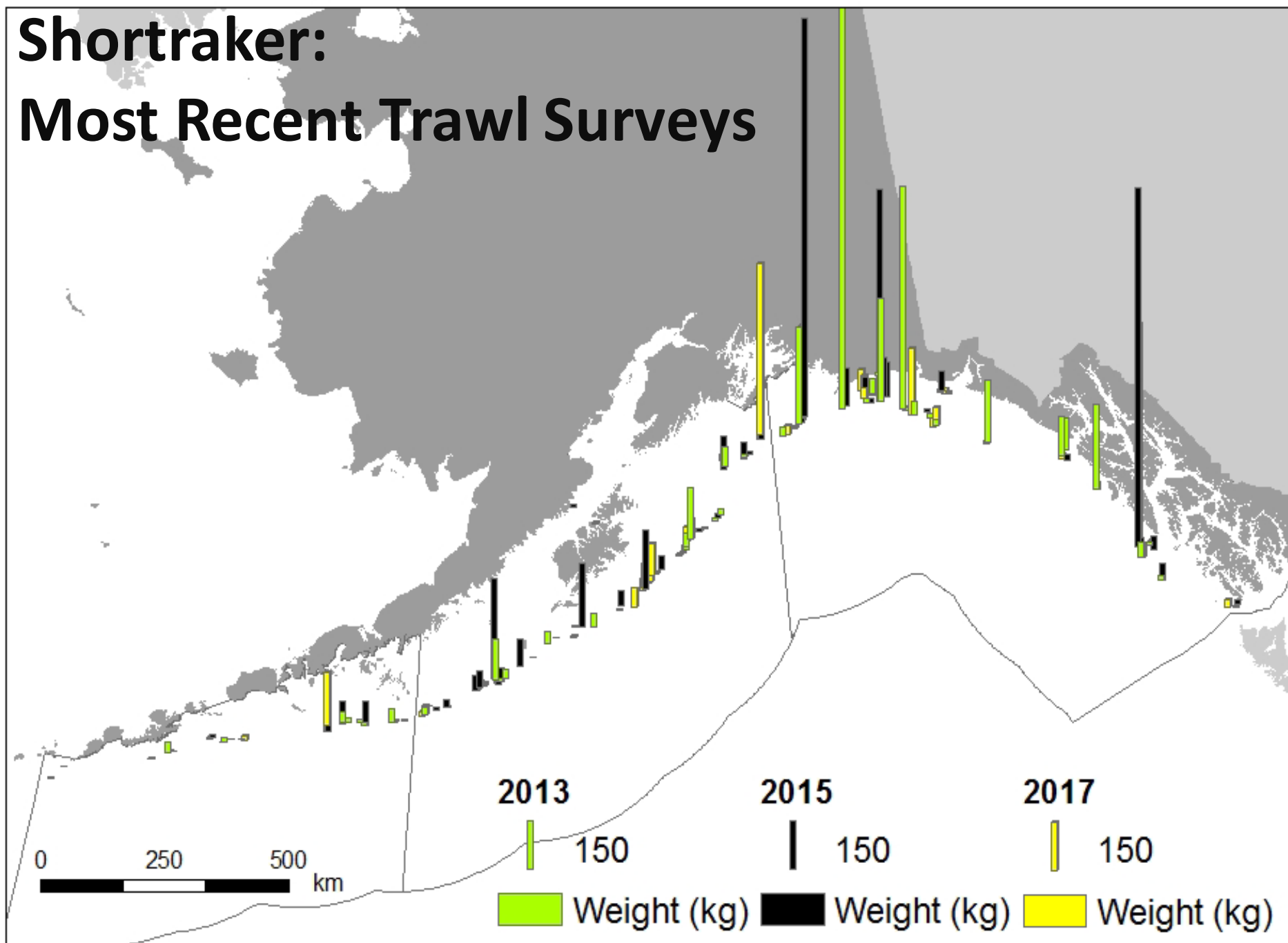
GOA Shortraker longline survey RPNs w/ 95%



# Estimated Exploitable Biomass via Random Effects Model

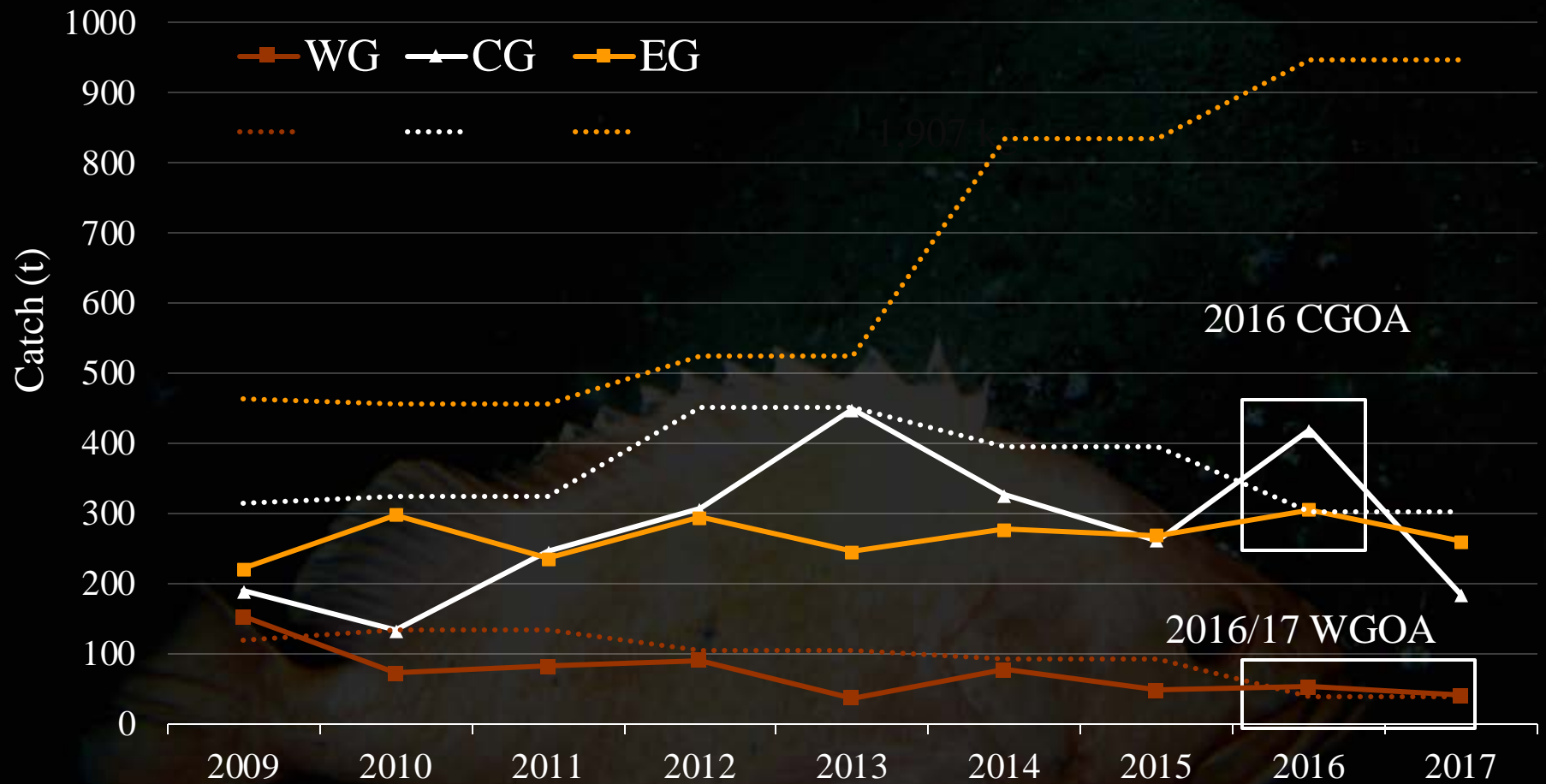


# Shortraker: Most Recent Trawl Surveys

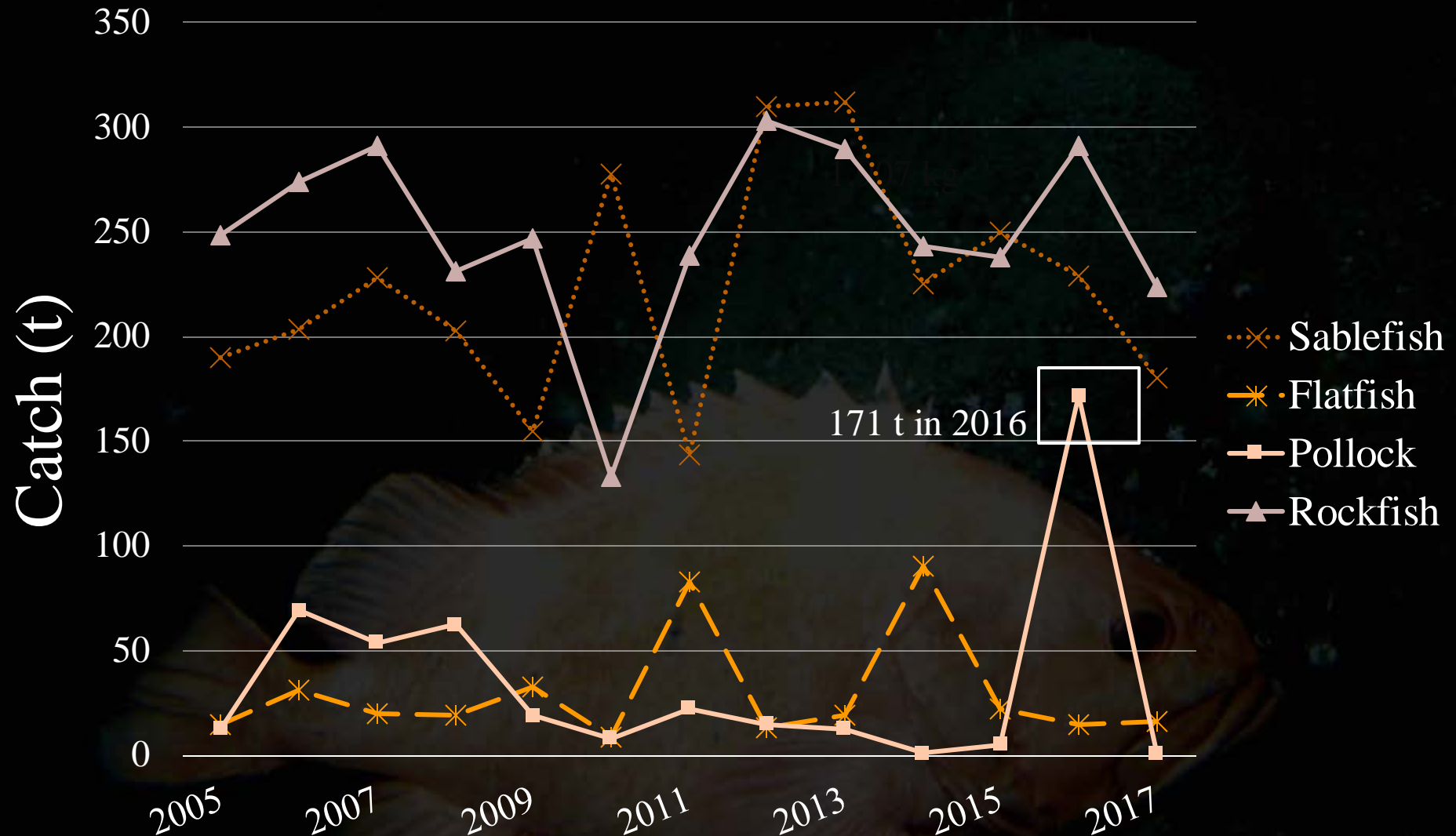




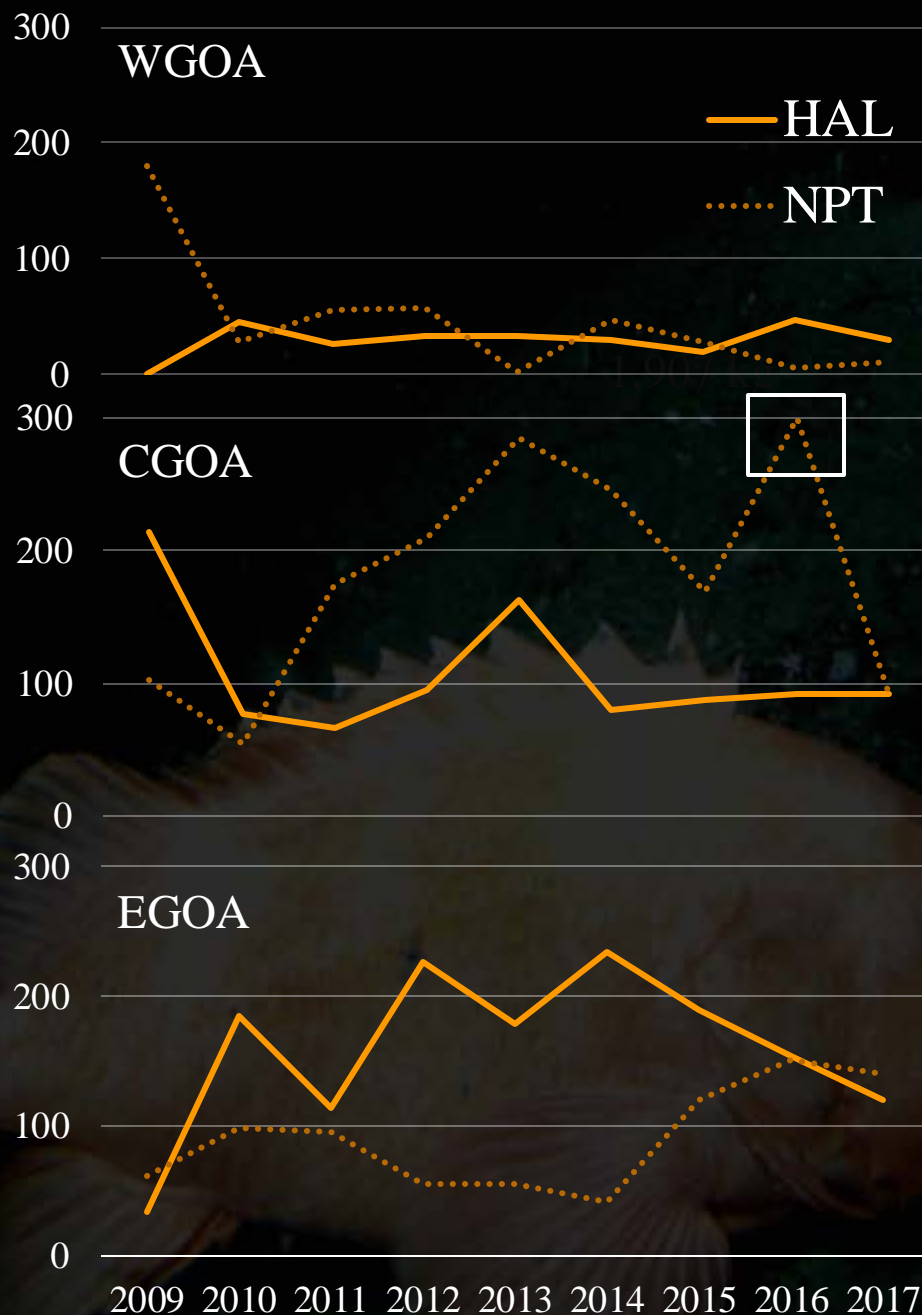
# Shortraker: Catch by area



# Shortraker: Catch by fishery



*...present gear specific catches by region (GOA PT Nov 2015, SSC Dec 2015).*

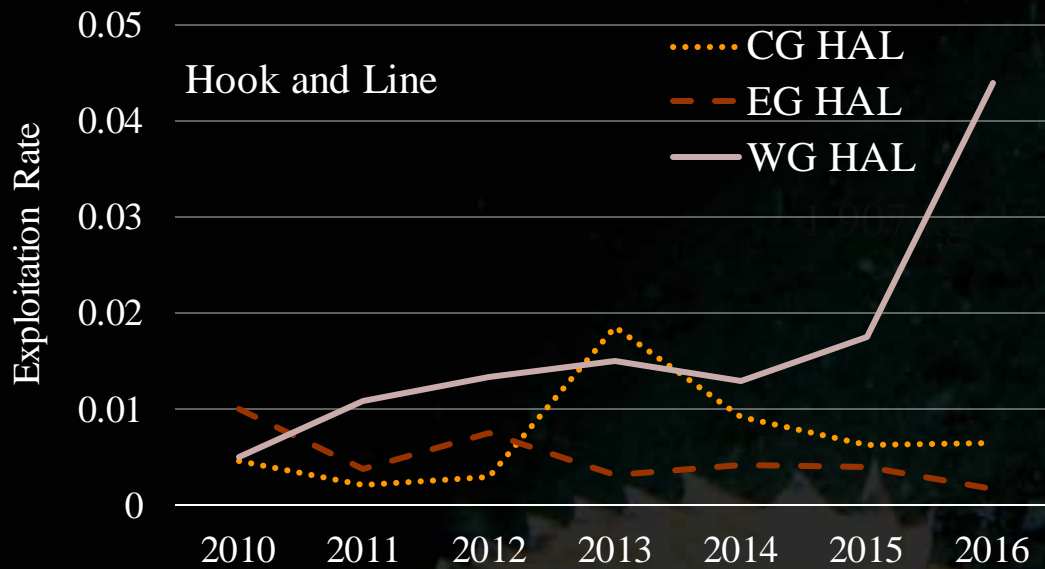


Trawl catch of SR generally occurs in the rockfish fisheries, but 2016 saw high catch (171 t) in pollock fishery

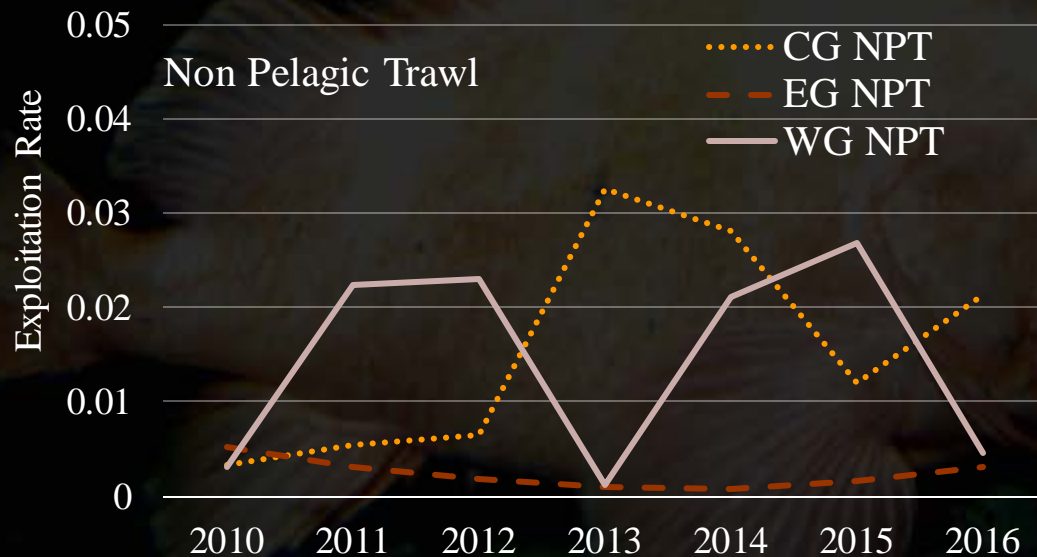
Increase in trawl caught SR in the EGOA in recent years.



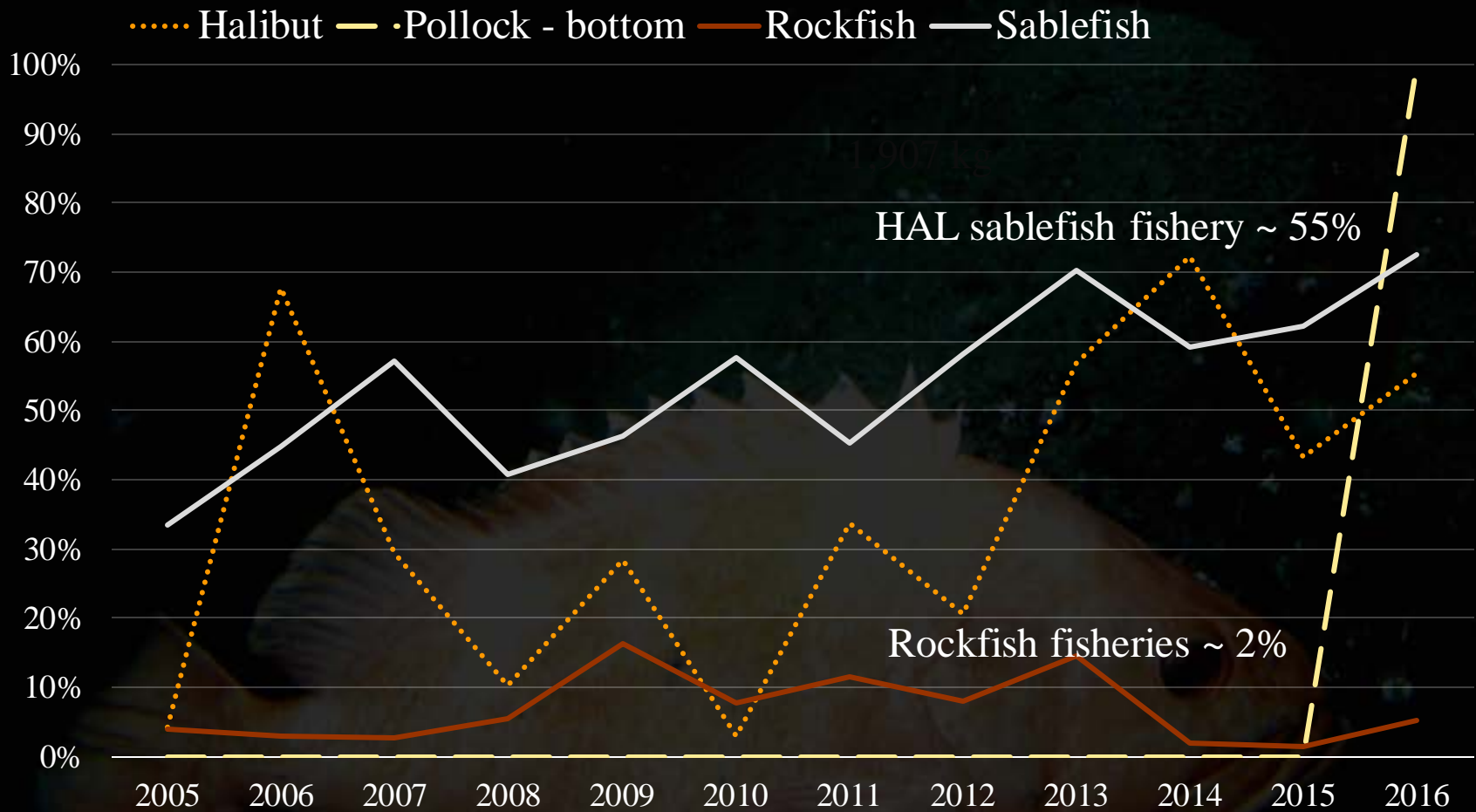
*...examine the shortraker exploitation rates (F) over time from each area and gear type (GOA PT Nov 2016).*



VARIABLE but LOW....  
generally most exploited  
in the WGOA and  
least exploited in  
the EGOA.



*...examine the sources of bycatch data (GOA PT Nov 2015, SSC Dec 2015).*



Time Series of Discard Rates of SR by Target Fishery

# GOA Shortraker Summary



- GOA shortraker recommendations for 2018 (tier 5):
  - $F_{OFL} = M = 0.03$
  - $B$  (exploitable biom.) = 38,361 t
  - **OFL** =  $38361 \times 0.03 = \mathbf{1,151\ t}$
  - $F_{ABC} = 0.75 * M = 0.0225$
  - **ABC** =  $38,361 \times 0.0225 = \mathbf{863\ t}$   
(down from 1,286 t in 2016 & 2017)

# Shortraker Apportionment of ABC for 2018



Apportionment is based on random effects estimation of biomass by region, fit to 1984-2017 trawl survey biomass estimates

- Western: 44 t (↑16%)
- Central: 305 t (↑1%)
- Eastern: 515 t (↓46%)