



**NOAA  
FISHERIES**

**SEFSC**

**Gulf Branch  
Miami, FL**

# **SEDAR 68 – Gulf Scamp** ***(Mycteroperca phenax)***

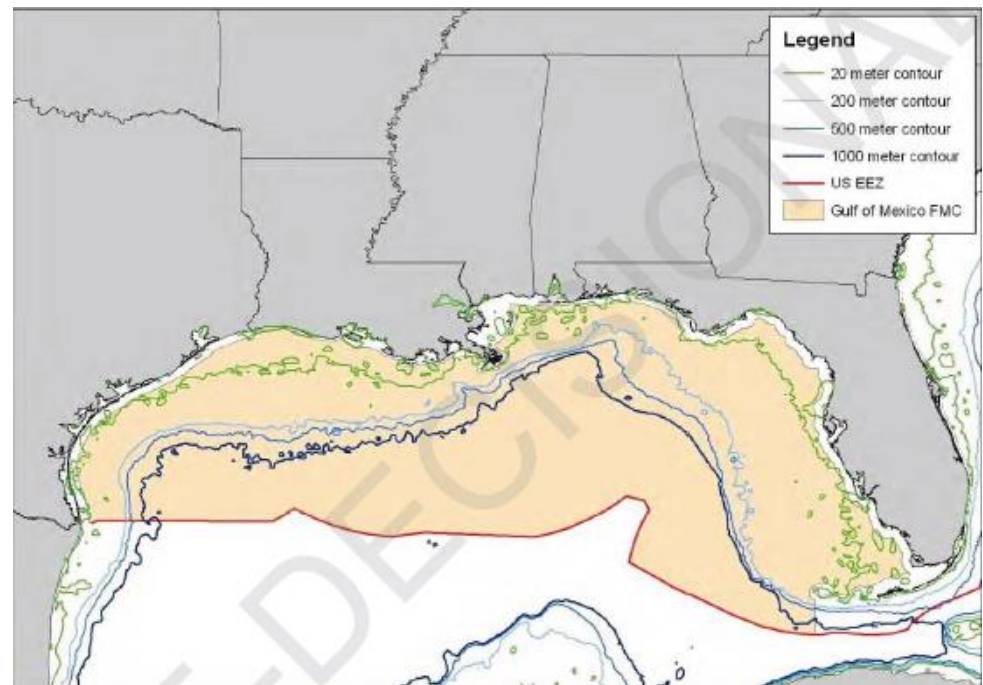
## **Operational Assessment Reef Fish AP Summary**

October 11, 2022

This presentation has been modified by Ryan Rindone for the Reef Fish AP meeting for brevity and to include SSC findings and recommendations.

# Stock ID Workshop (SEDAR68-SID-05)

- Gulf of Mexico stock is separated from the South Atlantic at council boundary line (U.S. Highway 1 in Florida Keys)
  - Found no evidence of biological substructure supporting deviation from management boundary at this time
- Include yellowmouth grouper
  - Limited data (SEDAR49)



# Gulf Scamp regulations

## Com quota closures:

- 11/25-12/31/2004
- 10/10-12/31/2005

## Rec seasonal closures:

- 11/1-12/31/2005
- 2/1-3/31/2010 (-2013)
- 2/1-3/31/2014+  
(seaward of 20 fathoms)

State (Florida) 20" TL

State (Florida) 16" TL

Federal 16" TL

5

4

3

State (Florida) 20" TL

State (Florida) 16" TL

Federal 16" TL

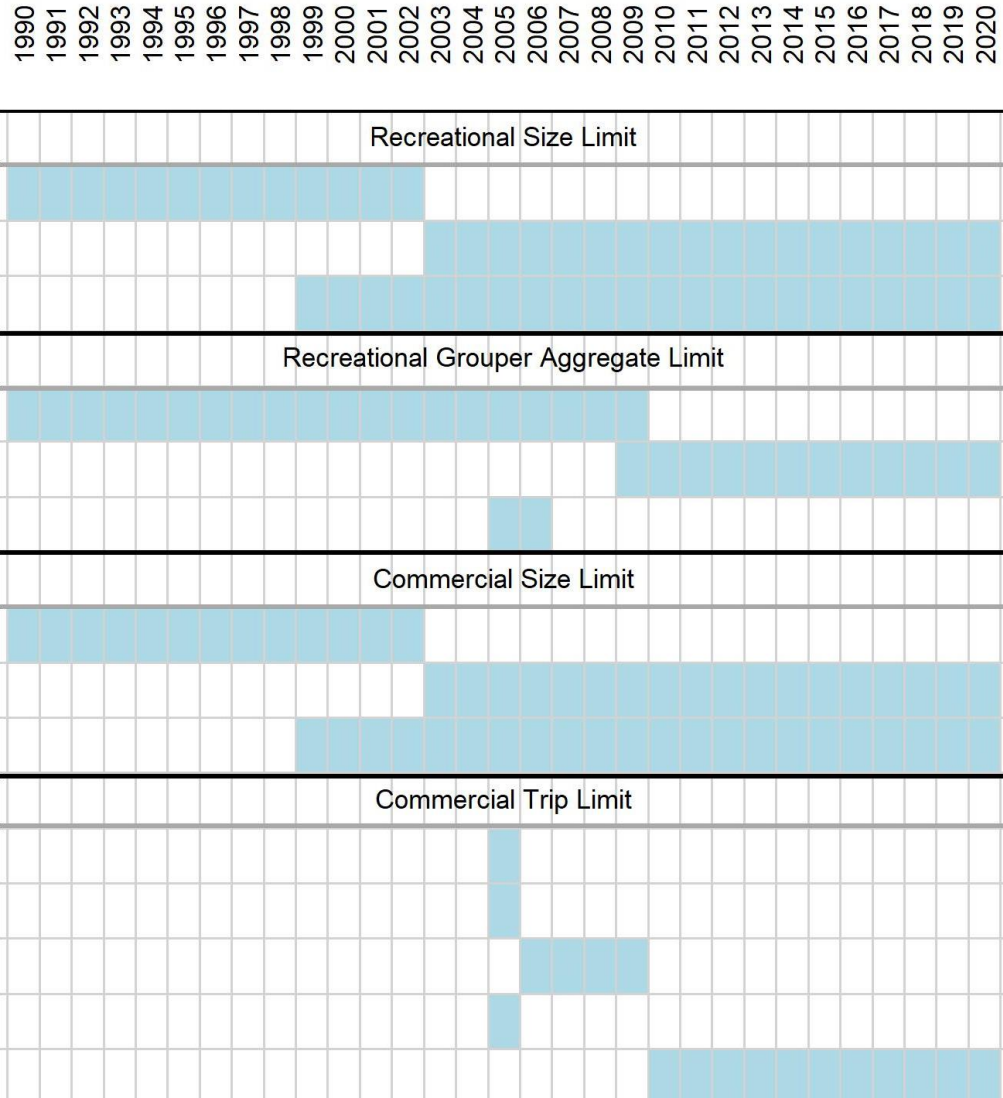
10,000 lbs gw (D&SWG)

7,500 lbs gw (D&SWG)

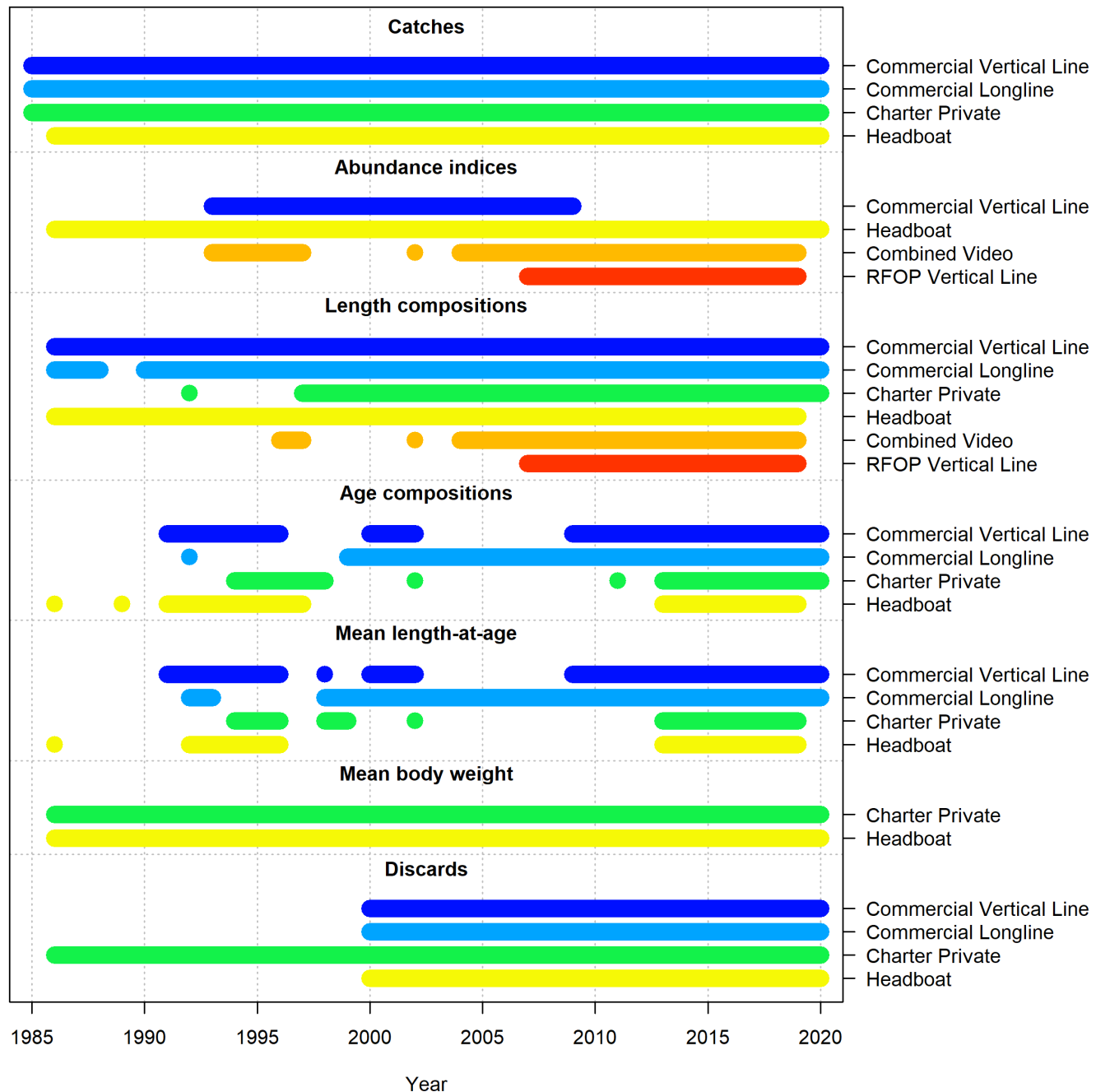
6,000 lbs gw (D&SWG)

5,500 lbs gw (SWG)

IFQ



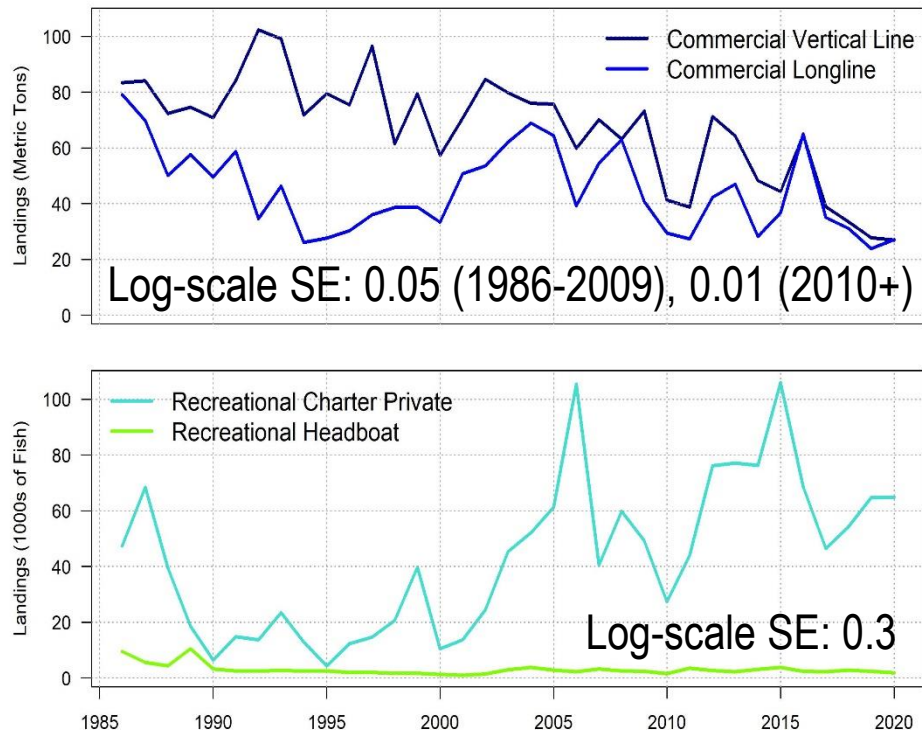
Overlapping cells reflect change in year



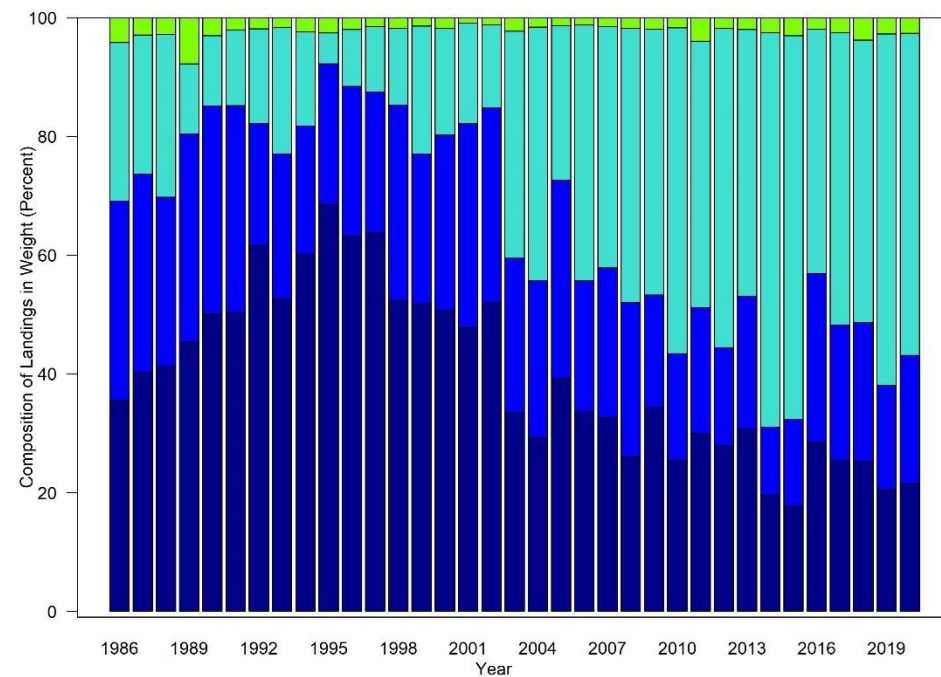
# Landings comparison

- Generally dominated by commercial fleets, but recreational Charter Private landings have increased in recent years

## Input landings



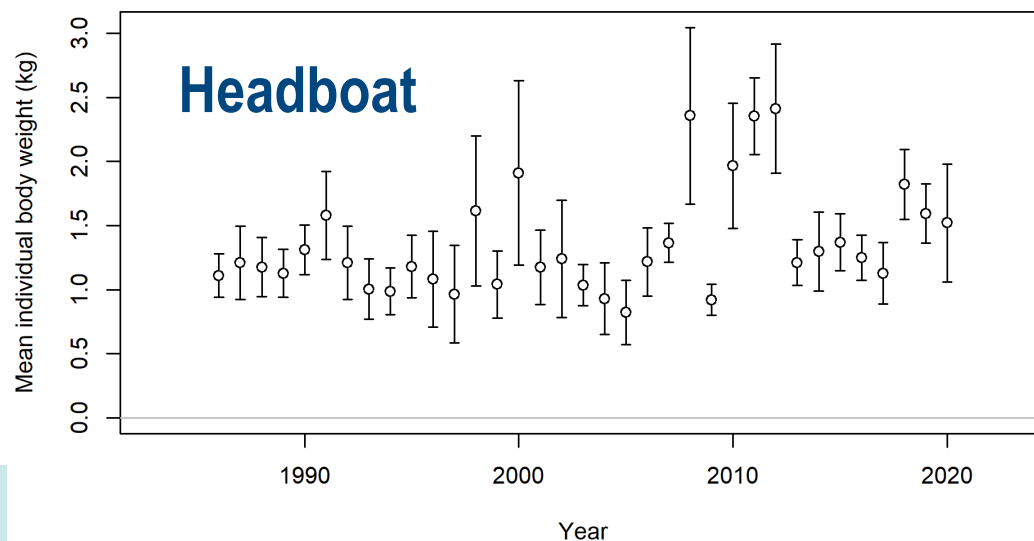
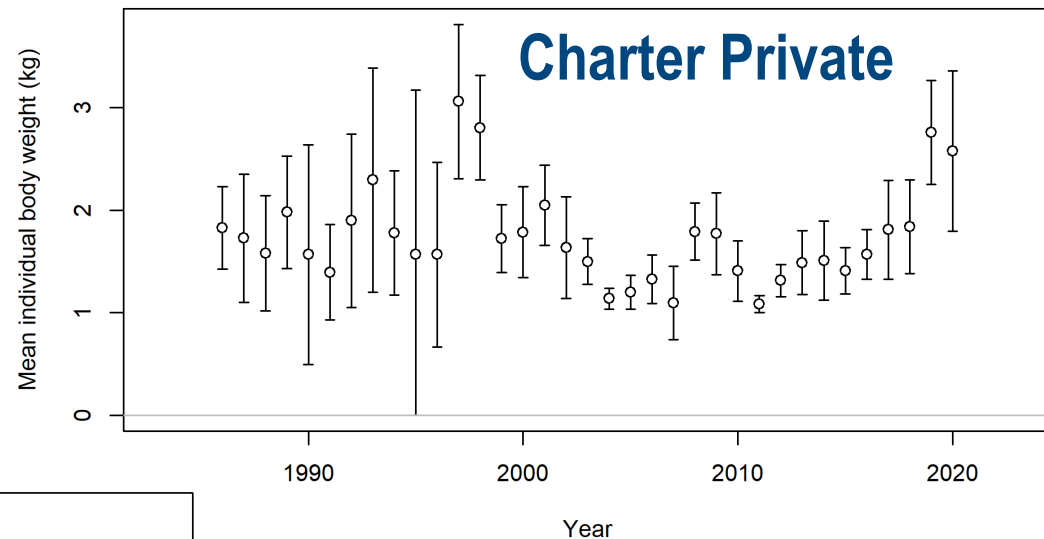
## Assessment predicted landings



○ Re-evaluate error estimates for recreational landings.

# Recreational landings

- Recreational surveys sample in numbers,
- Weight estimation multiplies numbers by average weights by strata

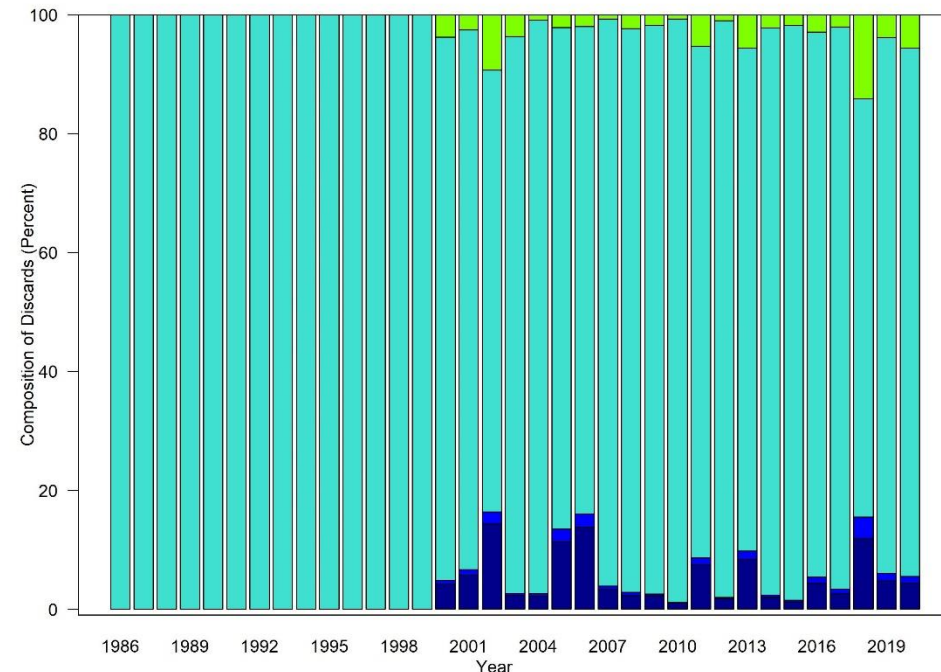
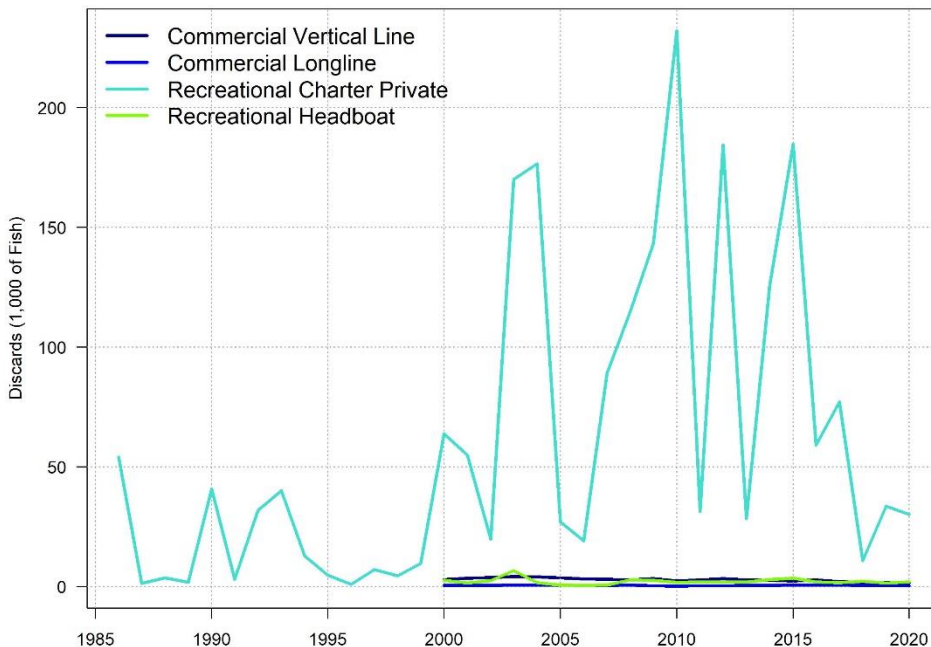


# Total discards\* comparison

\*before applying discard mortality rate

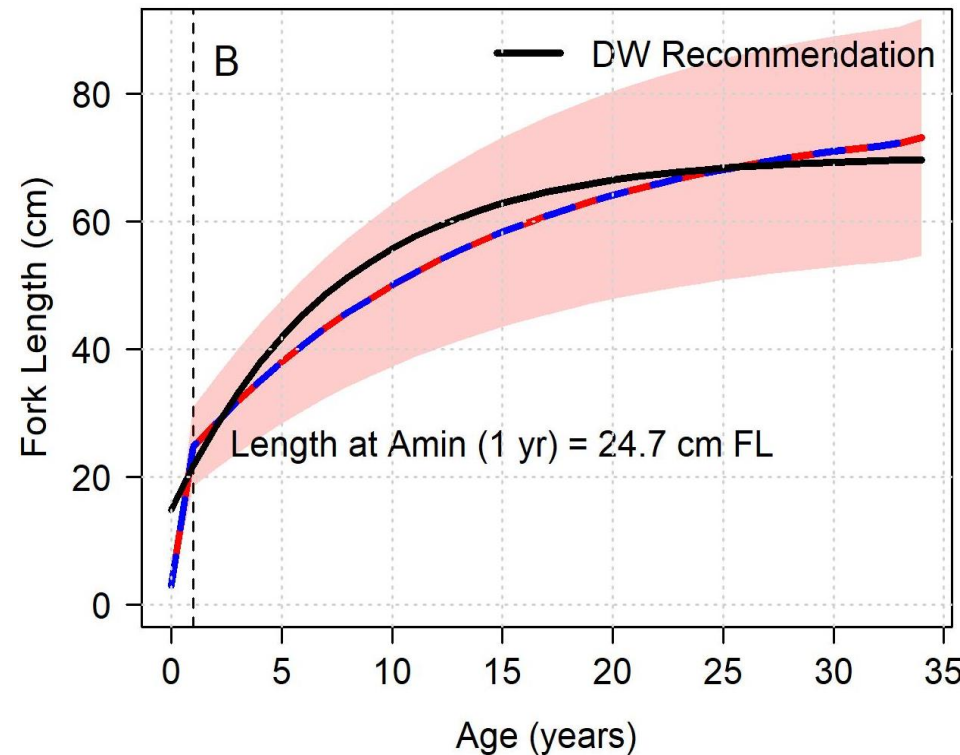
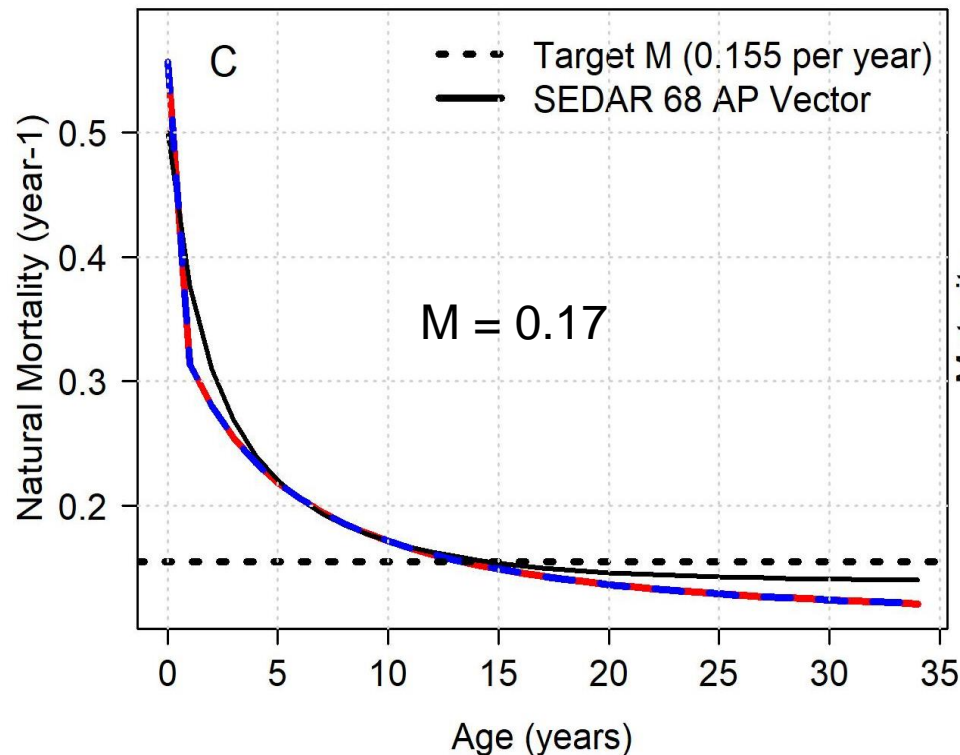
- Primarily from the Charter Private fleet

Fleet	Discard Mortality Rate
Commercial Vertical Line	0.47
Commercial Longline	0.68
Recreational Charter Private	0.26
Recreational Headboat	0.26





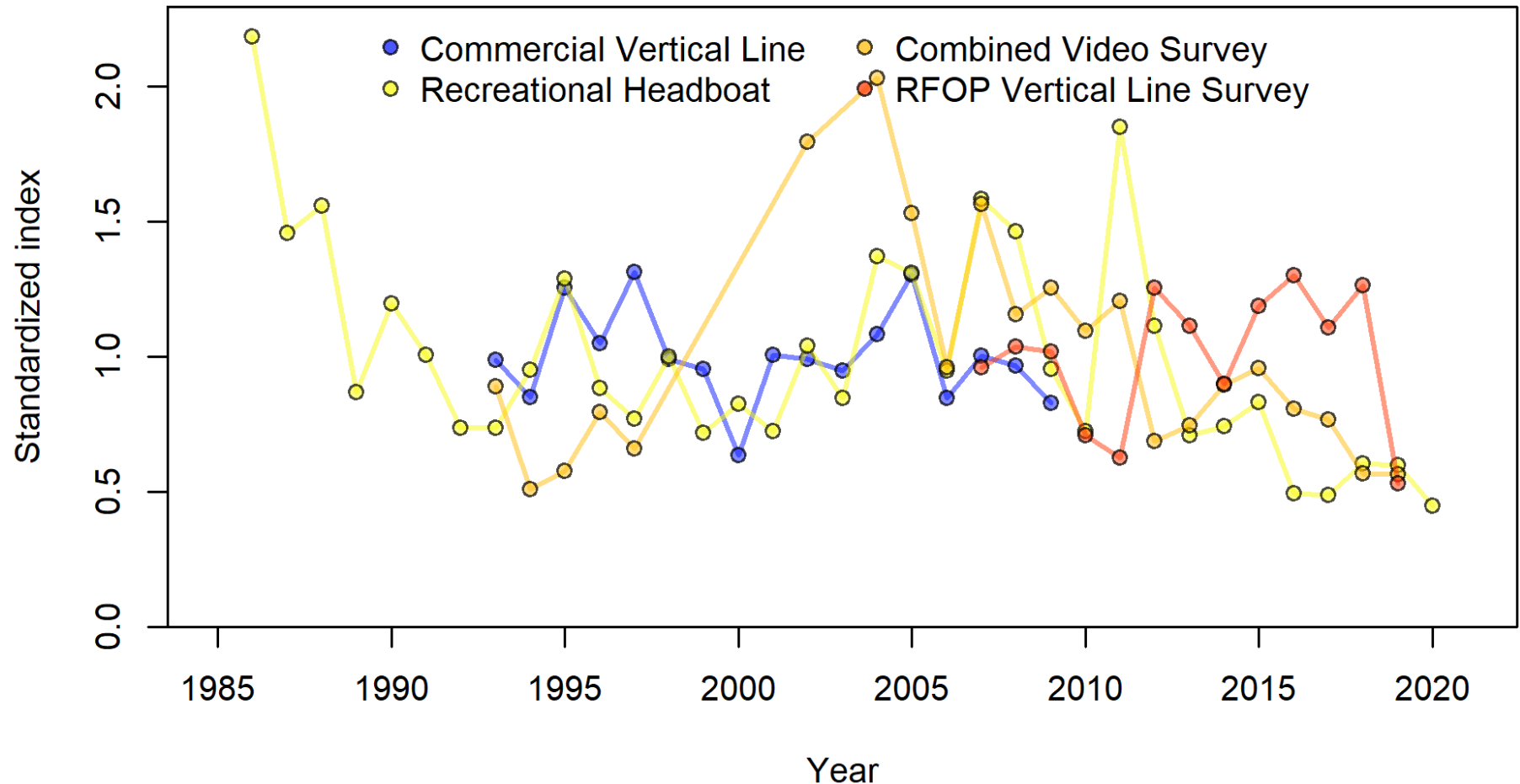
# Commercial lengths and ages were generally larger/older than recreational samples



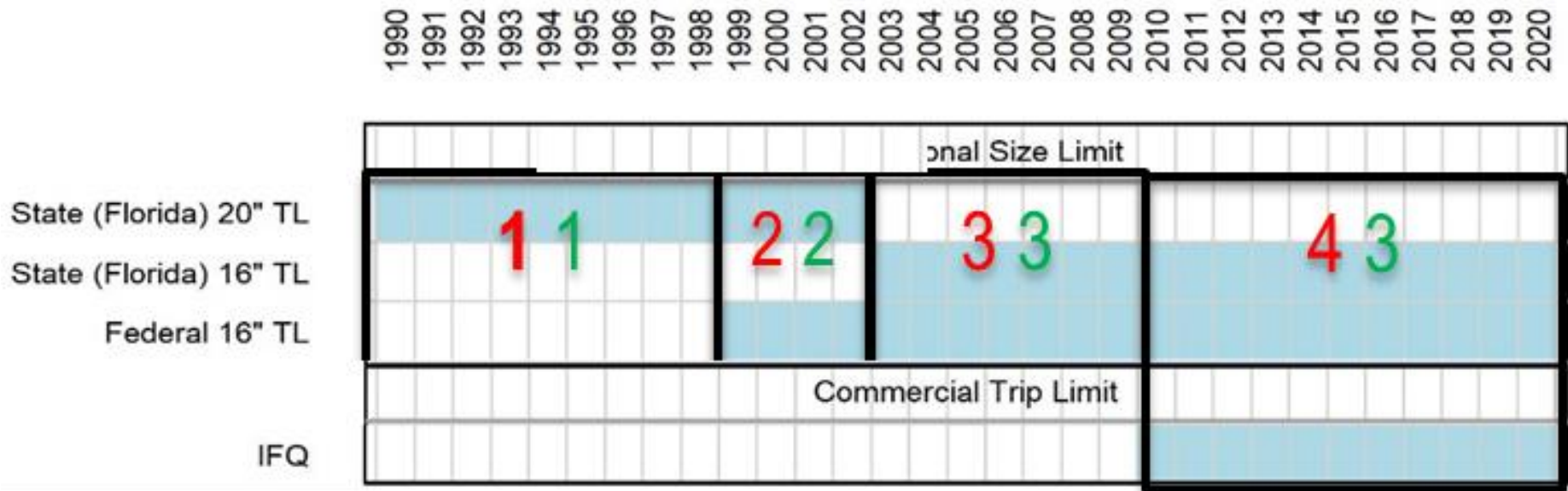


# Indices of relative abundance

- Recent declines evident, especially the RFOP survey

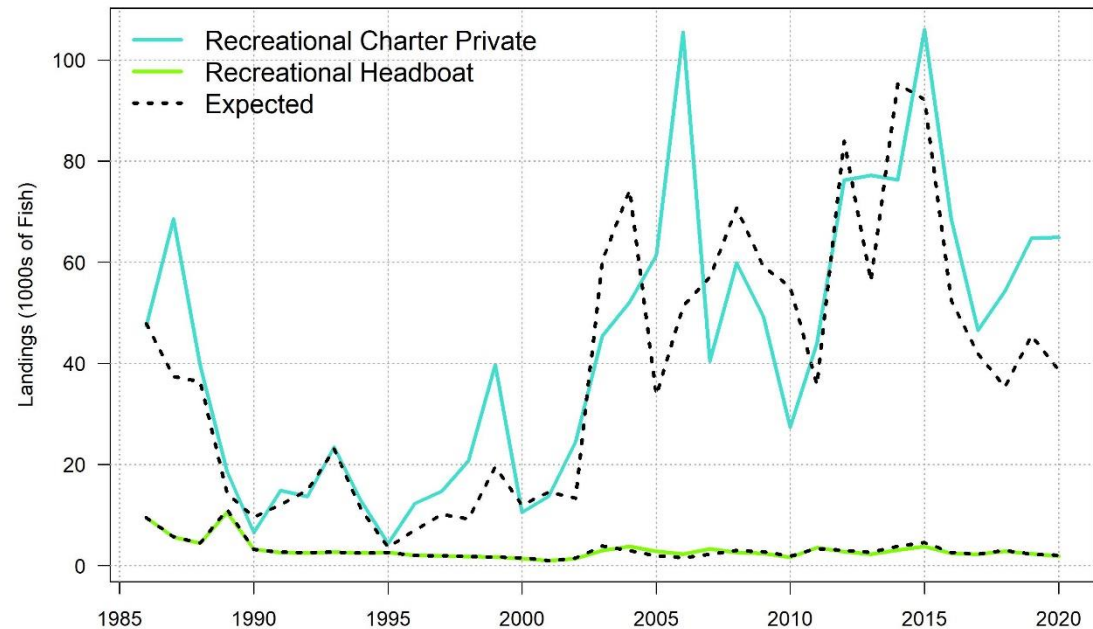
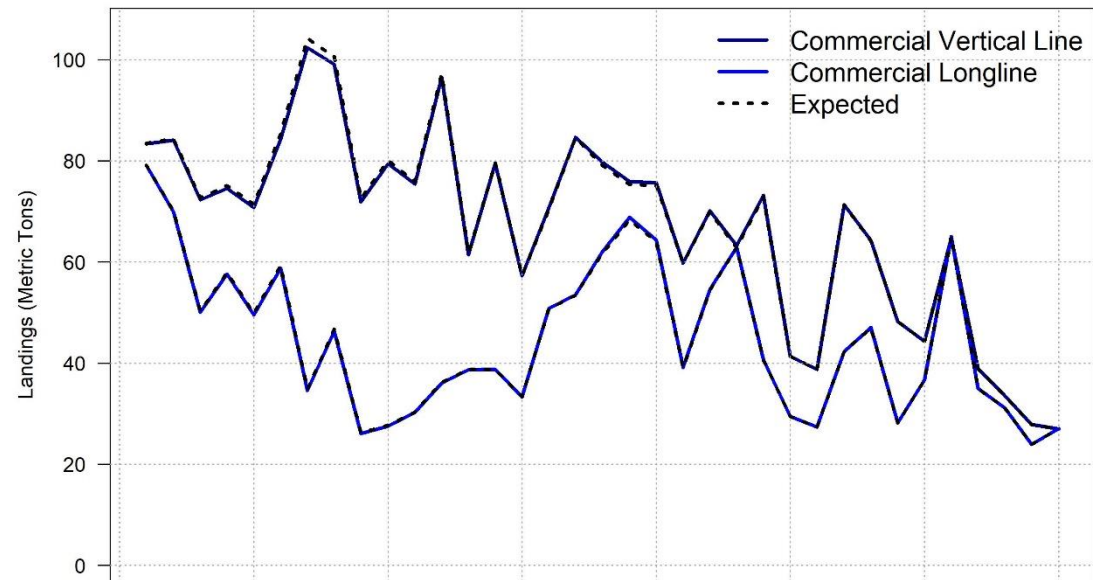


# Selectivity and Retention



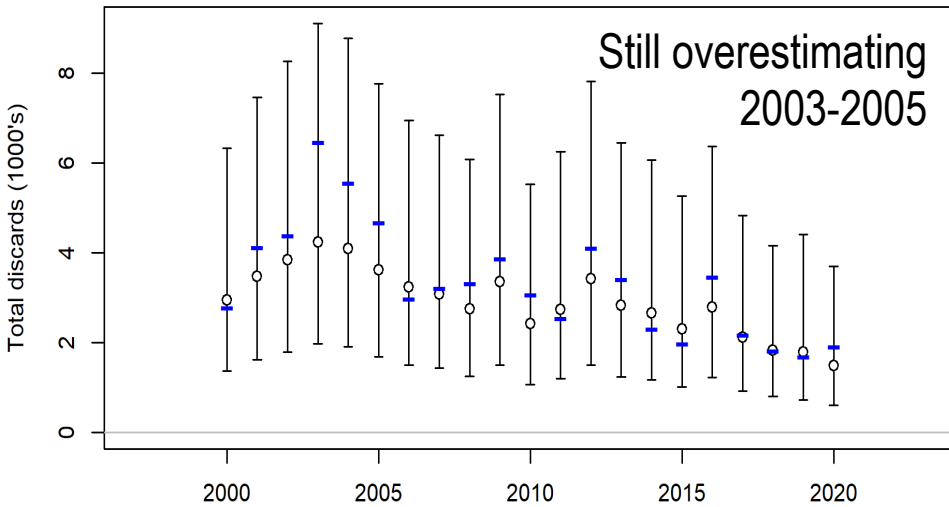
# Landings

- Commercial SE = 0.05  
(IFQ years SE = 0.01)
- Recreational SE fixed  
at 0.3

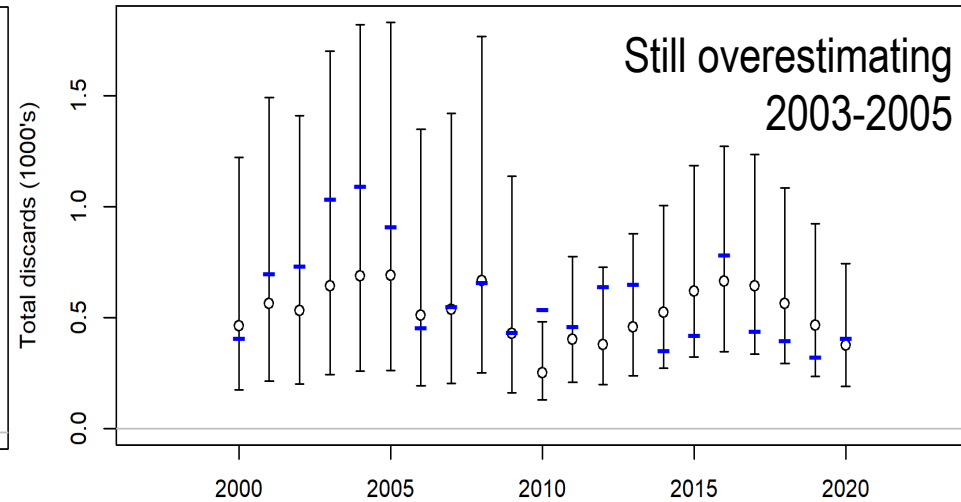


# Total discards (before applying discard mortality)

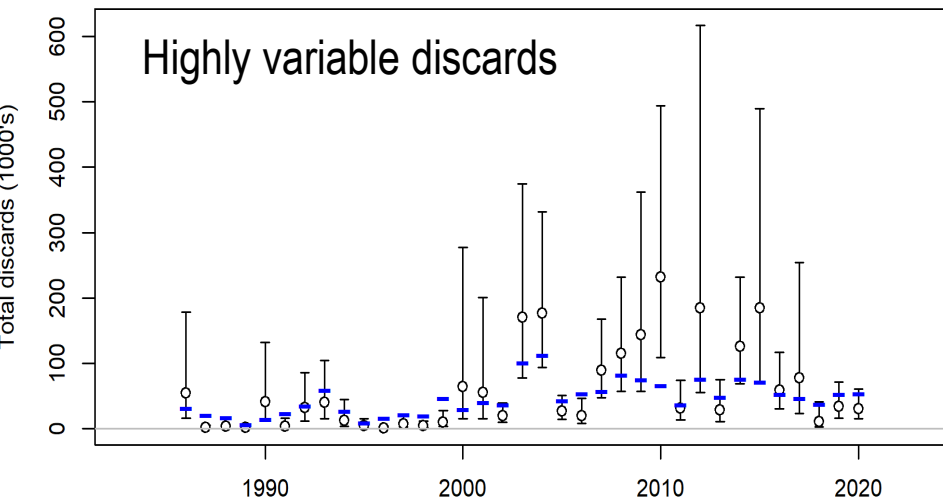
## Commercial Vertical Line



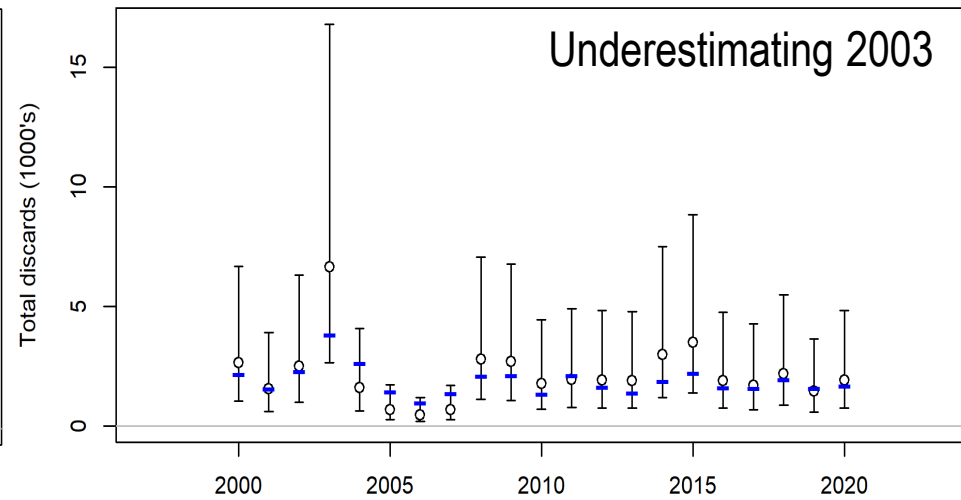
## Commercial Longline



## Charter Private

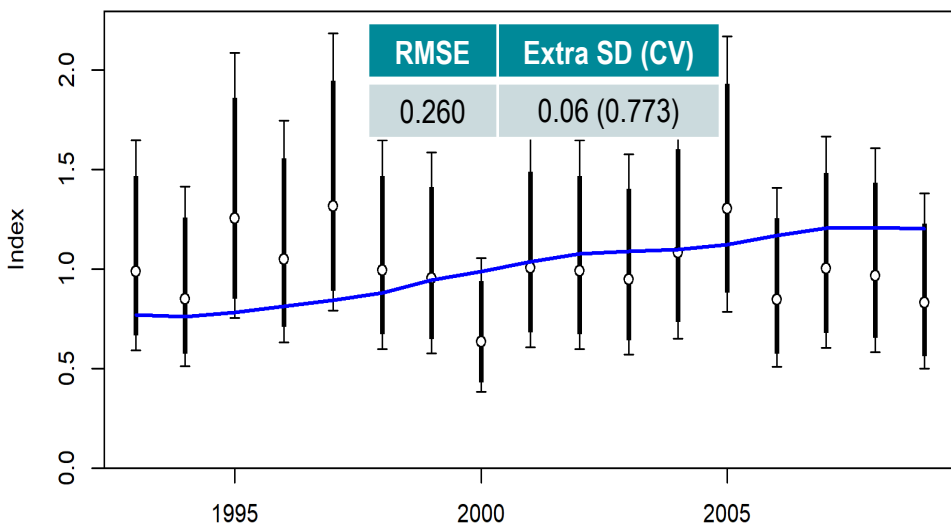


## Headboat

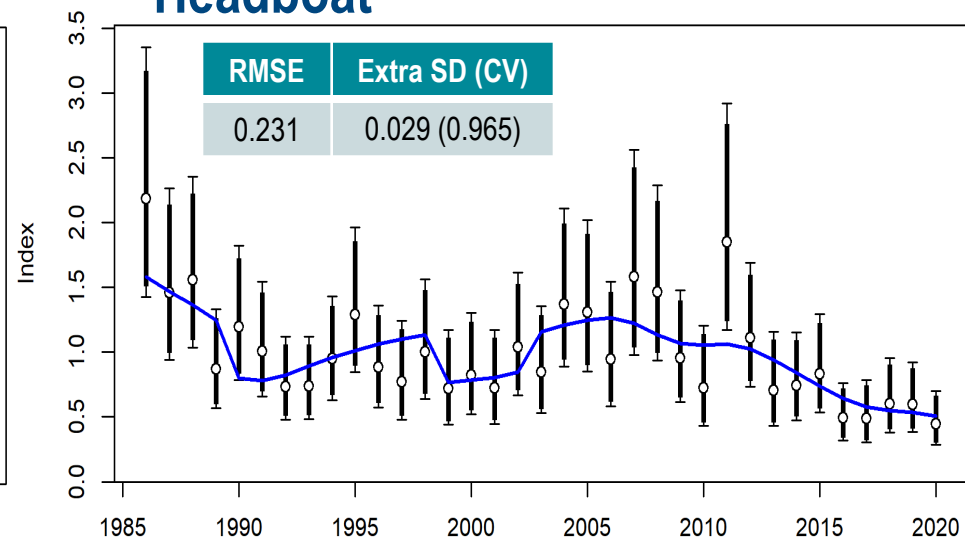


# Indices of relative abundance

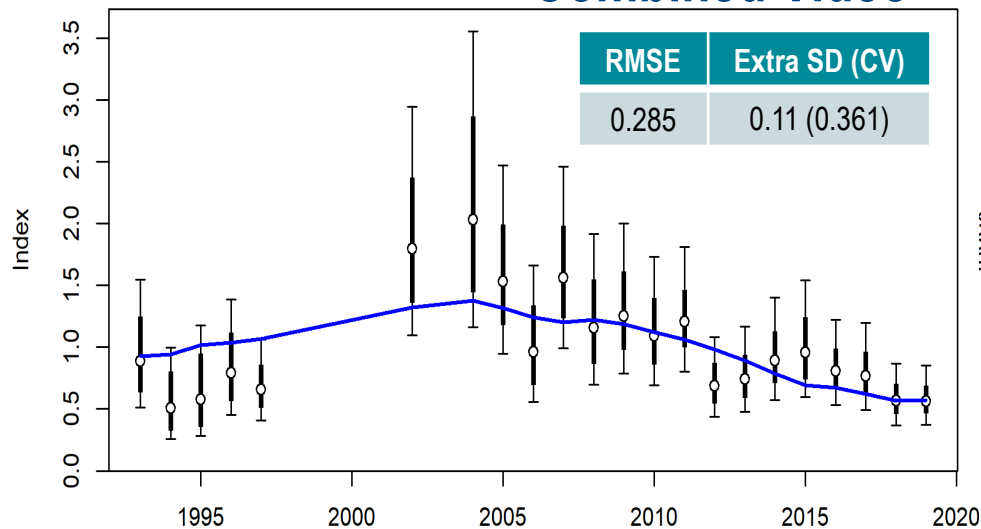
## Pre-IFQ Commercial Vertical Line



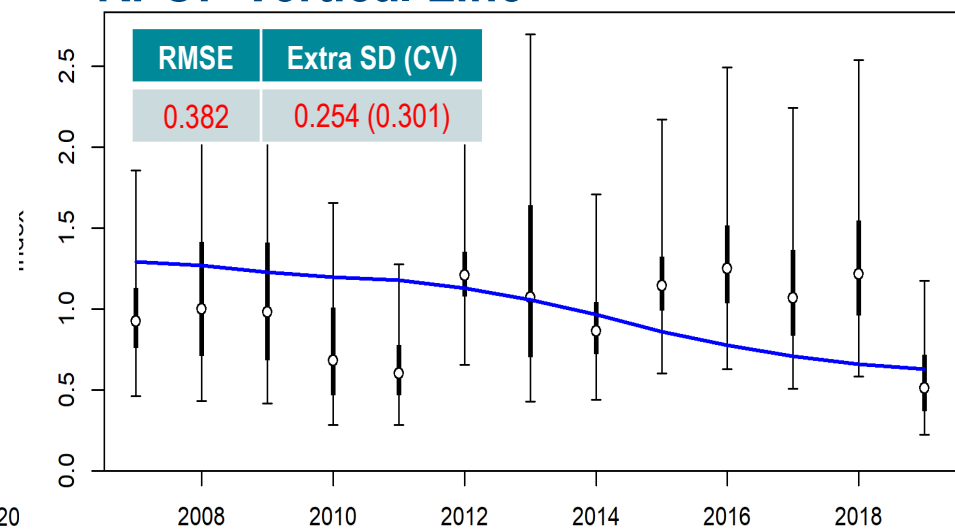
## Headboat



## Combined Video

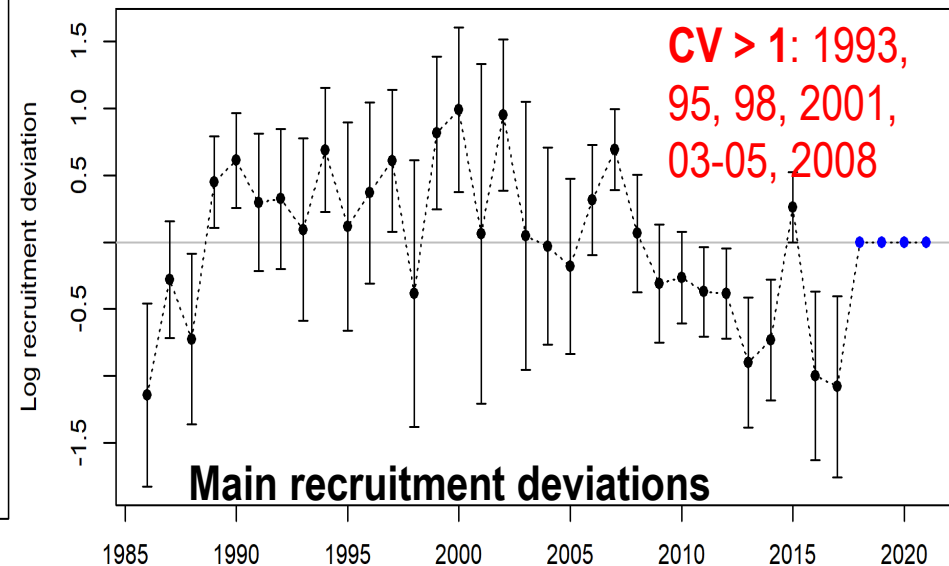
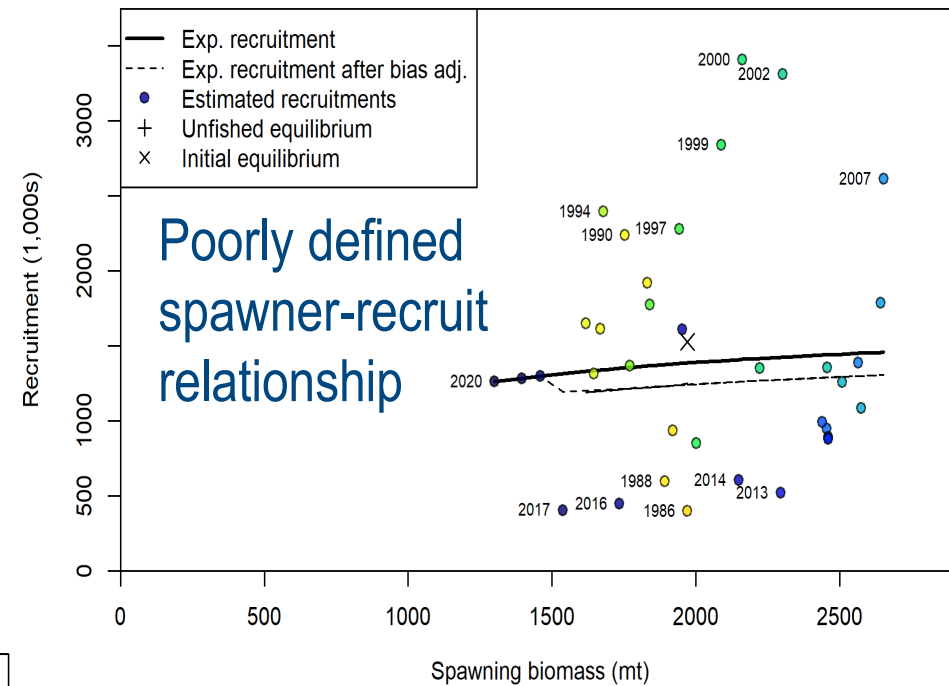
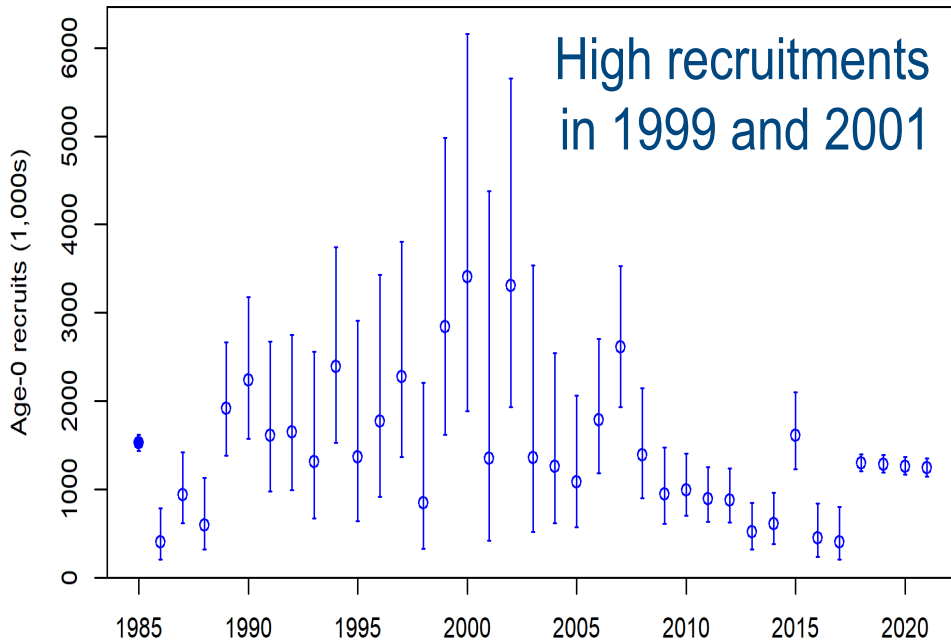


## RFOP Vertical Line

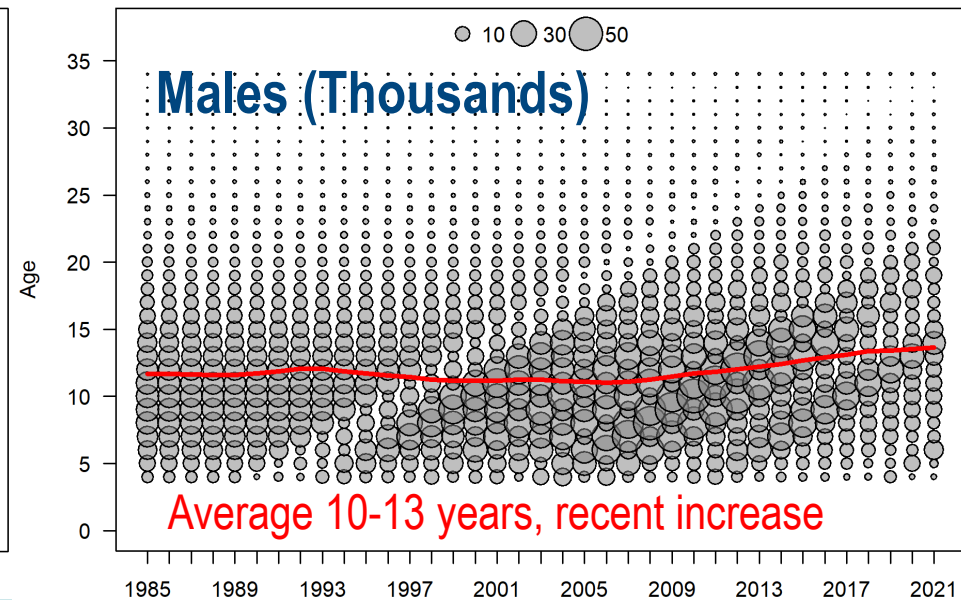
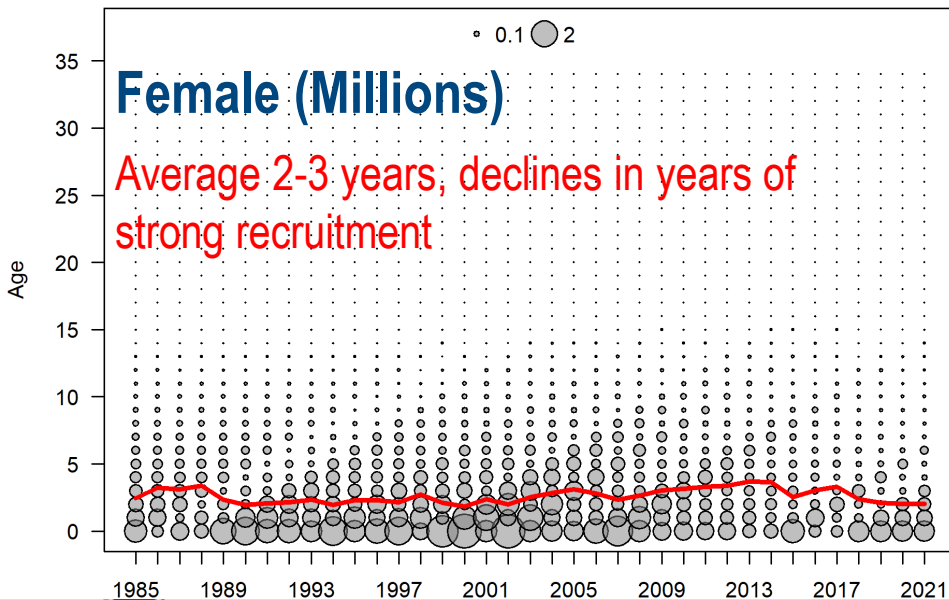
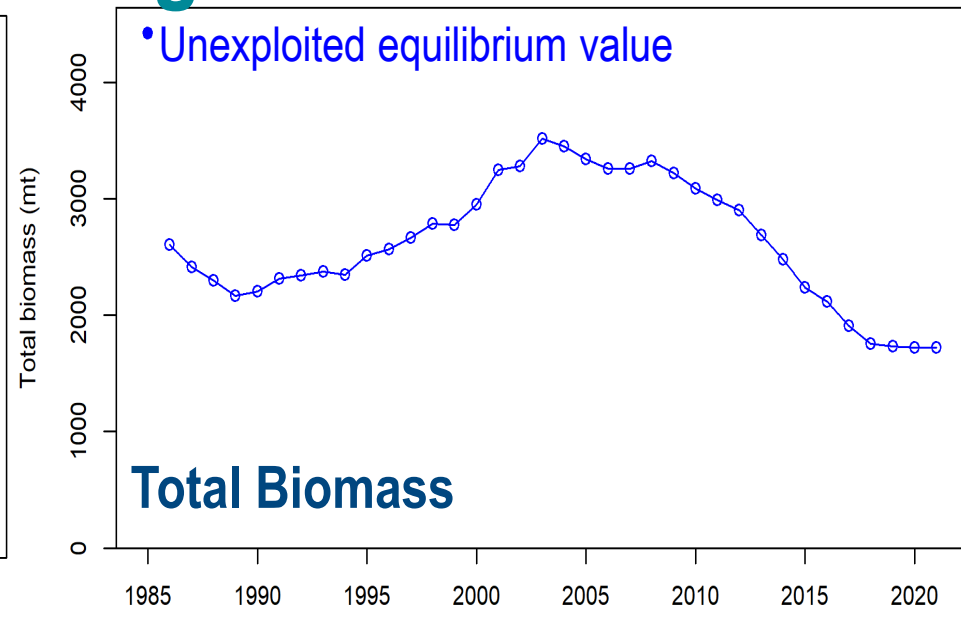
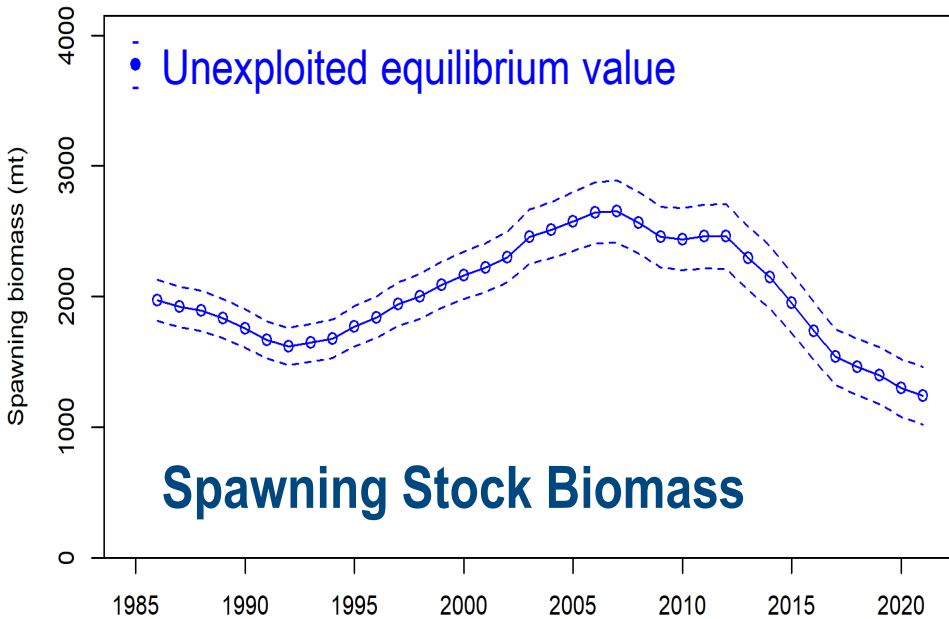


# Recruitment

Parameter	Value (CV)
Steepness	0.6935 (NA)



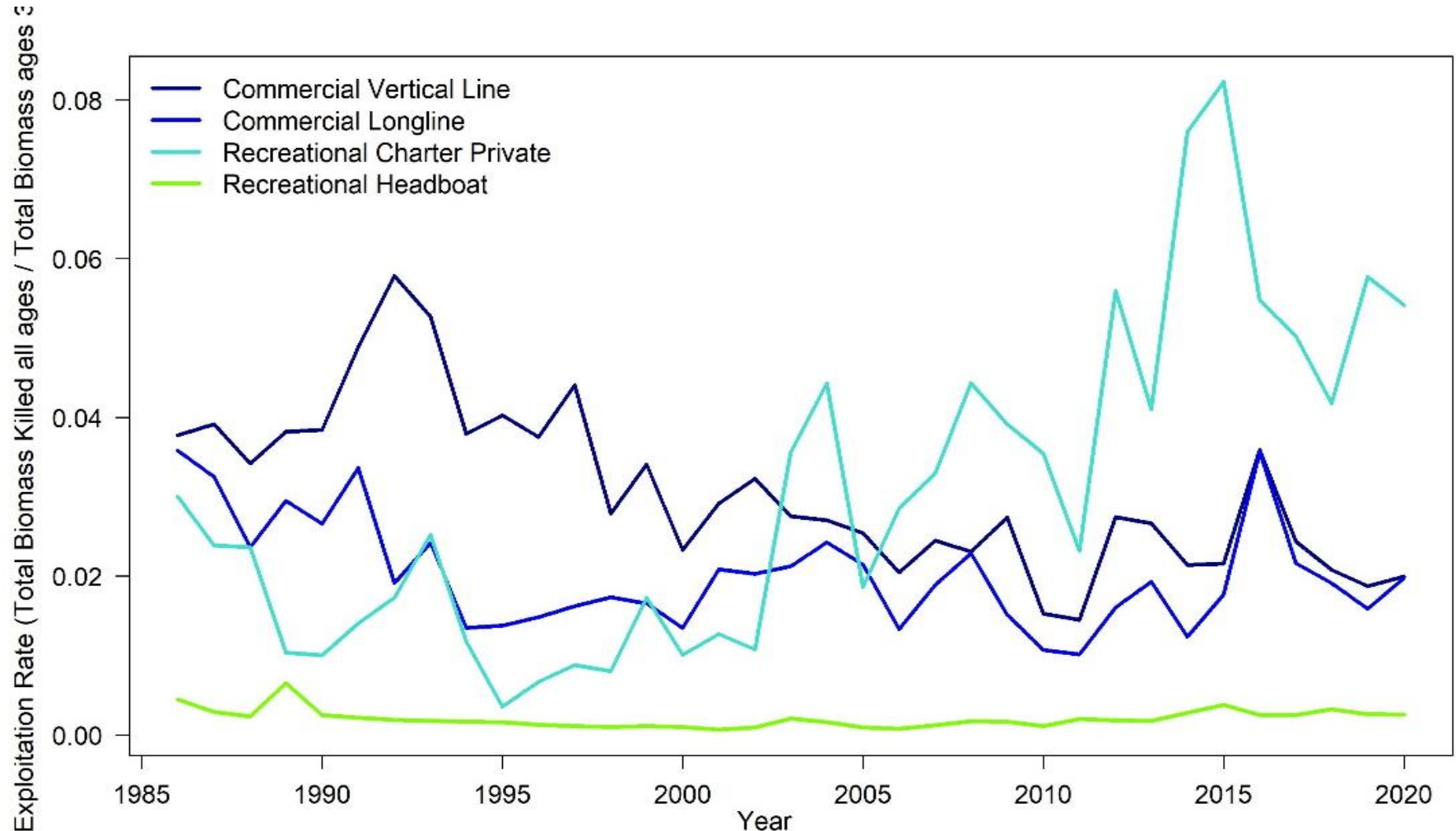
# Biomass and Numbers-at-Age





# Fishing Mortality

- Commercial exploitation higher in earlier years
- Higher exploitation in recent years due to increased Charter Private
- Exploitation by headboat minor



# Base Model Conclusions

- SEDAR68 OA Base Model incorporates the best available data, addressed the TORs and fixed modeling issues evident in the RW Base Model
- Diagnostics show an improved model with better fits

# Projection settings

Parameter	Value	Comment
Relative F	Average from 2018-2020	Average relative fishing mortality (apical F) over terminal three years of model
Selectivity	Average from 2018-2020	Fleet specific selectivity estimated over terminal three years of model
Retention	Average from 2018-2020	Fleet specific retention estimated over terminal three years of model
Recruitment	Beverton-Holt stock-recruitment relationship	Derived from the model estimated Beverton-Holt stock-recruitment relationship
Interim Landings (2021-2022)	29.14/27.98 mt (Comm. Vertical Line); 30.13/27.02 mt (Comm. Longline); 96.07/75.24 1,000 of fish (Charter Private); 3.13/2.46 1,000s of fish (Headboat)	Landings provided for 2021; For 2022, used 3-year average of landings (2019-2021)
Allocation ratio	None	

# Benchmarks & Reference Points

- Under  $F_{30\%SPR}$ , stock is not overfished and not undergoing overfishing
- Under  $F_{40\%SPR}$ , stock is not overfished and not undergoing overfishing
  - Higher SPR target would result in a larger and more robust stock
  - Scamp (and yellowmouth) experiencing increased directed effort in recent years

# SSC Review: September 2022

- SEDAR 68 OA Base Model represents BSIA
- SSC recommends an  $F_{MSY}$  proxy of  $F_{40\%SPR}$  based on life history
  - Supports larger, more robust stock
  - Under an  $F_{MSY}$  proxy of  $F_{40\%SPR}$ , the stock is not overfished or experiencing overfishing
- More input needed from Council:
  - SWG still includes scamp and YMG
  - If Scamp/YMG split out, that pair and the rest of the SWG complex will need ACLs
  - IFQ program?