



**NOAA  
FISHERIES**

SEFSC, Miami  
& Pascagoula

# SEDAR 61: US Gulf of Mexico Red Grouper

## 2022 Interim Analysis

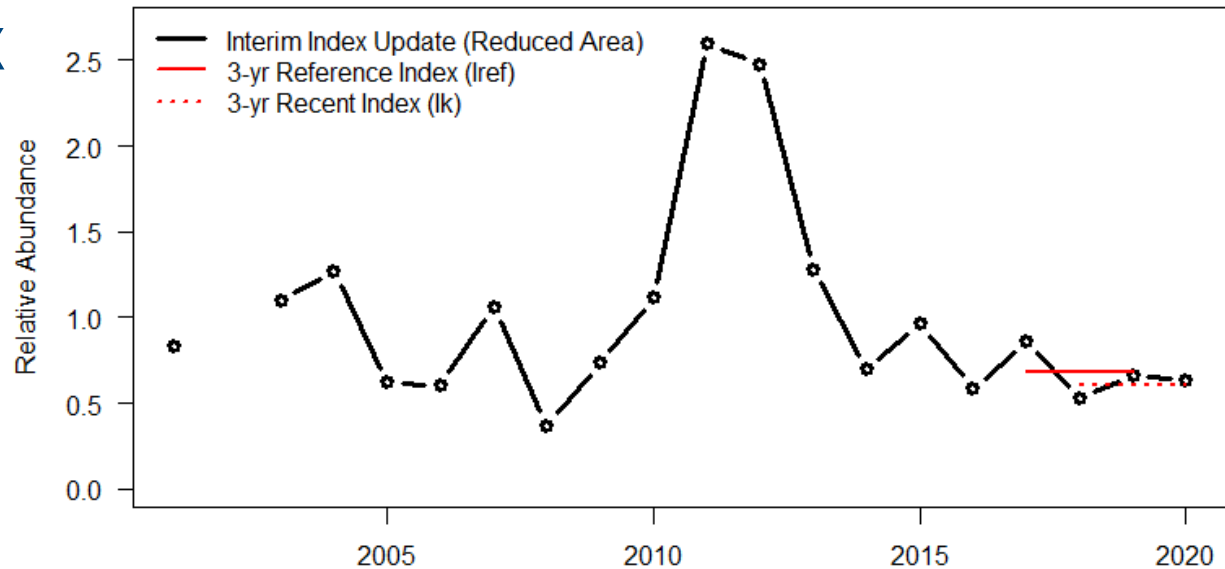
Gulf of Mexico Fishery Management Council  
Scientific and Statistical Committee



March 8, 2022

# 2021 interim analysis

- Catch advice adjusted using index-based harvest control rule and 3-year moving average of bottom longline index



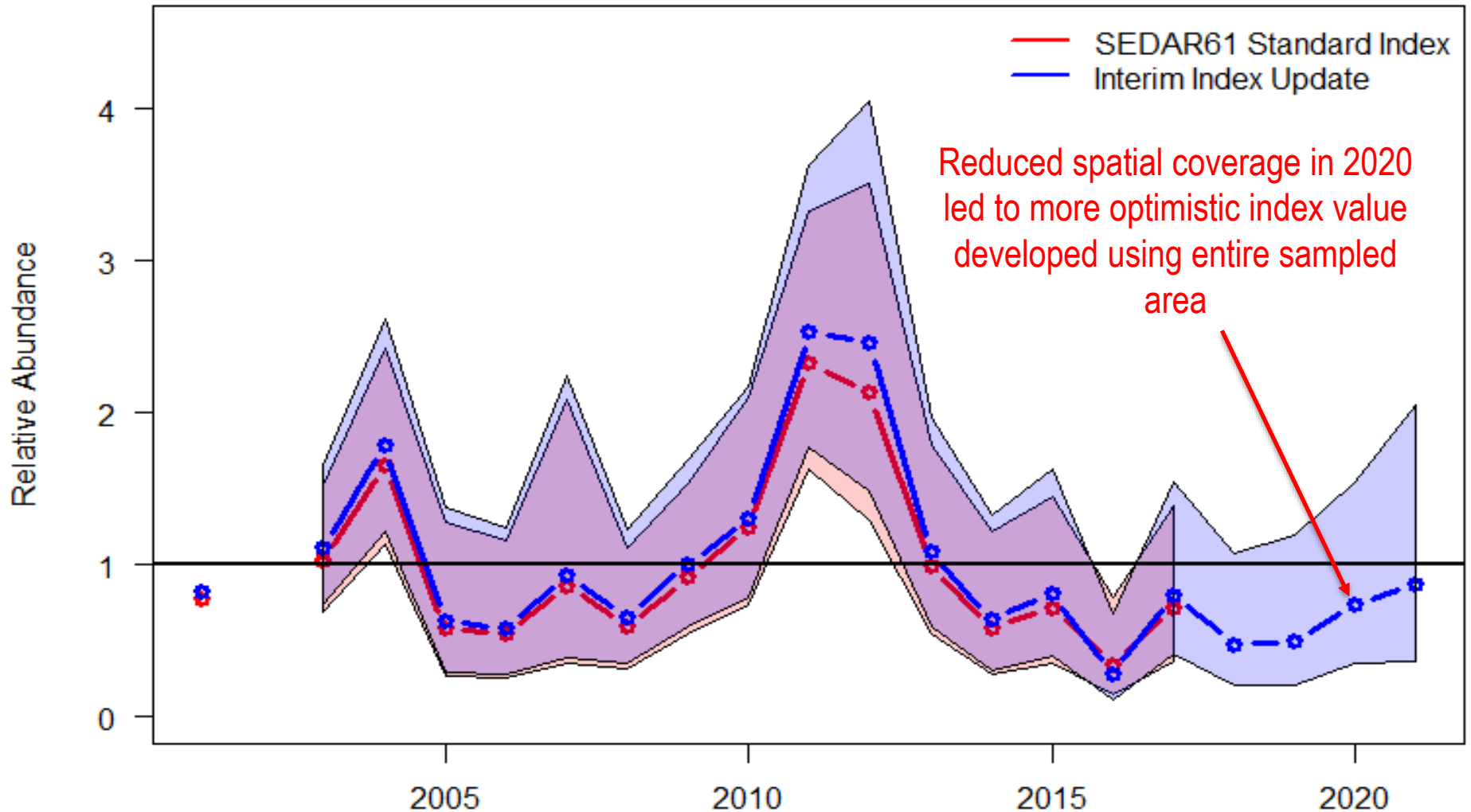
- Reduced spatial area index was used due to reduced survey coverage in 2020
- **Framework Action - ABC = 4.96 mp gutted weight**

# 2022 interim analysis

- Health check requested via updating available fishery-independent indices of relative abundance
  1. Bottom longline survey
  2. Summer groundfish survey
  3. ~~Combined video survey (time intensive data processing)~~
  4. ~~FWRI repetitive time drop survey – discontinued 2019~~
- Catch advice not adjusted this year
  - Changes to catch advice implemented every other year
  - Next adjustment expected in 2023

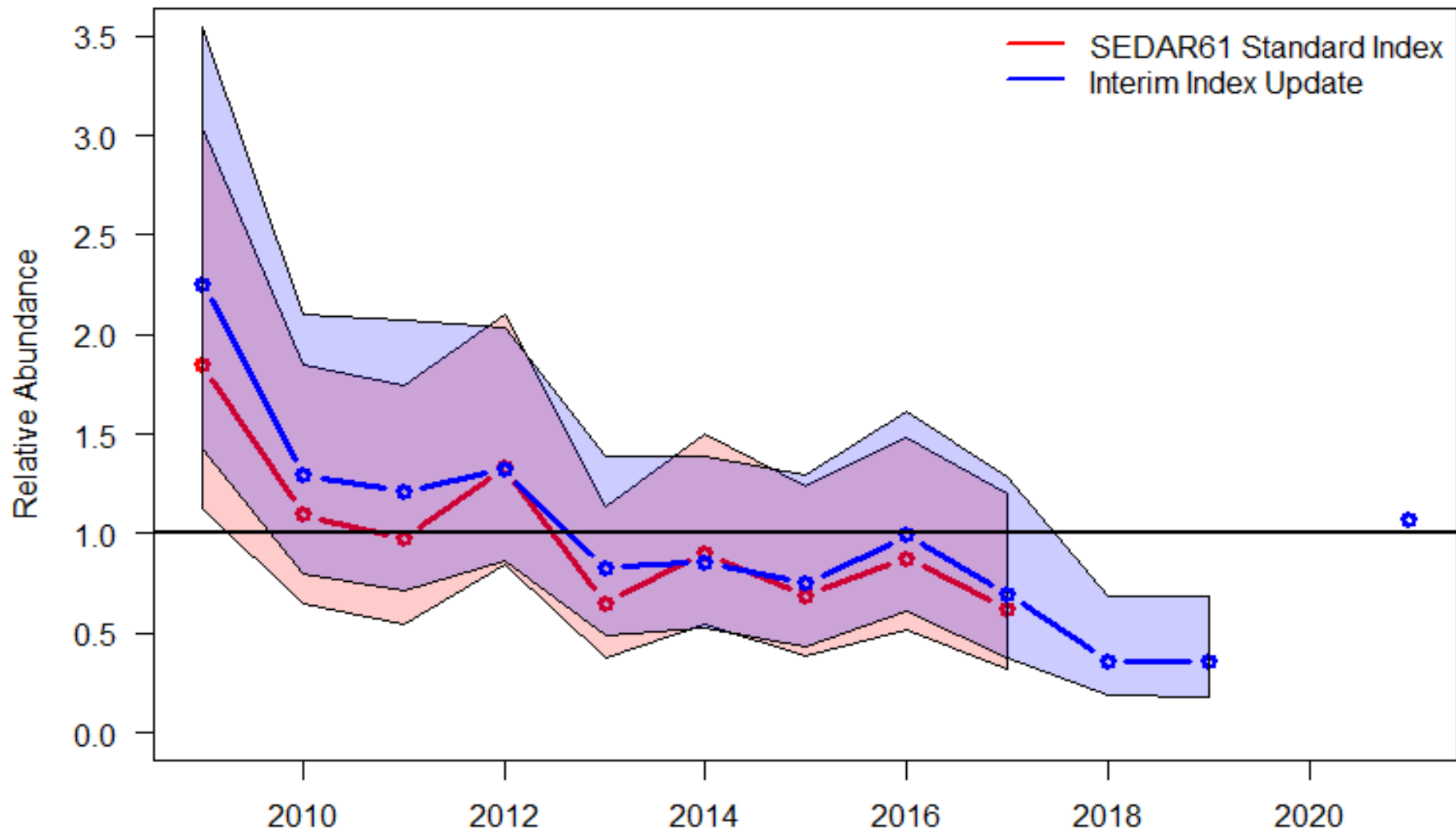
# Updated bottom longline index

Index shown is for the entire Eastern Gulf



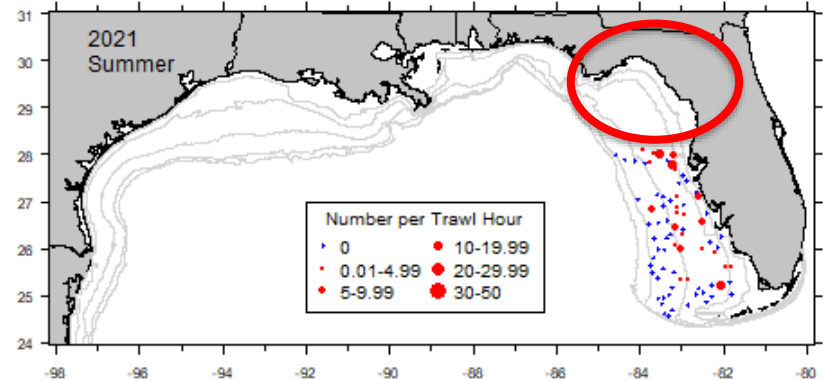
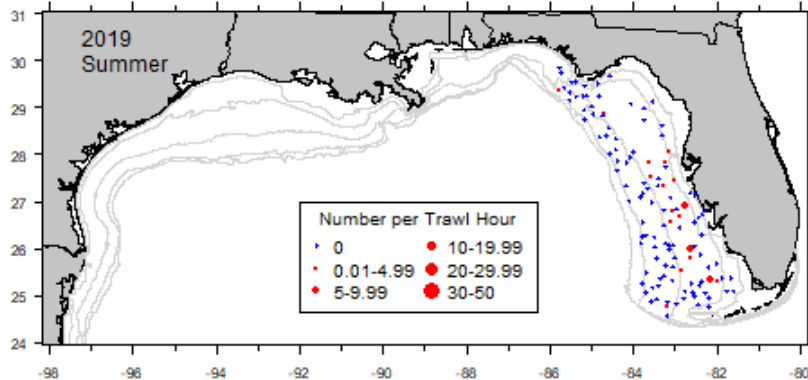
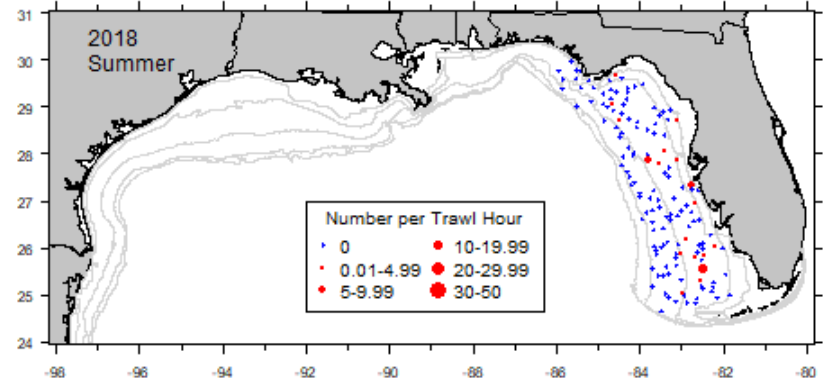
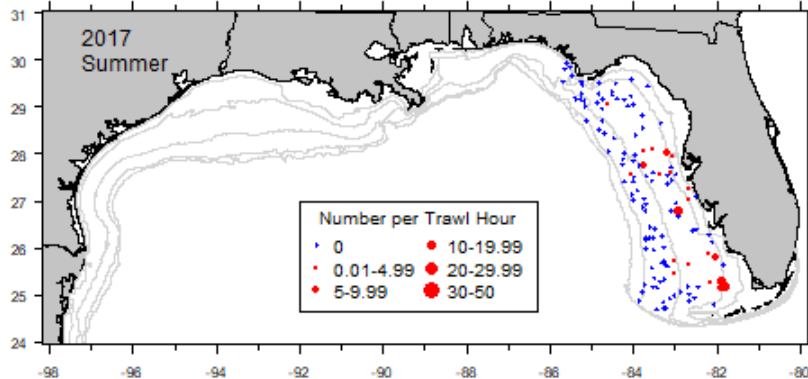
Not conducted  
in 2020

# Updated summer groundfish index



# 2021 groundfish survey spatial coverage

- Did not cover entire spatial area, but index developed using reduced spatial area showed similar increasing trend in relative abundance



# Summary

- Both indices show relatively higher abundance in 2021 compared to other recent years, which matches observations by fishermen on the water
  - Longline survey – relative abundance similar to 2017 levels (i.e., before the 2018 red tide)
  - Groundfish survey - relative abundance in 2021 just above the mean of the time series
- Both surveys occur during summer, whereas 2021 red tide bloom persisted later into the year

# Questions?

**Thank you to all SEDAR61 data providers  
and for your attention!**

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# NMFS Bottom Longline Index

| Survey Year | Frequency | N   | Delta-Lognormal Index | Scaled Index (mean = 1) | Coefficient of Variation | Lower Confidence Level | Upper Confidence Level |
|-------------|-----------|-----|-----------------------|-------------------------|--------------------------|------------------------|------------------------|
| 2001        | 0.21505   | 93  | 0.73605               | 0.82429                 | 0.29073                  | 0.46629                | 1.45714                |
| 2002        |           |     |                       |                         |                          |                        |                        |
| 2003        | 0.34188   | 117 | 0.9878                | 1.10621                 | 0.20223                  | 0.74121                | 1.65095                |
| 2004        | 0.41837   | 98  | 1.59799               | 1.78955                 | 0.19302                  | 1.22072                | 2.62344                |
| 2005        | 0.25      | 40  | 0.56222               | 0.62962                 | 0.40612                  | 0.28821                | 1.37547                |
| 2006        | 0.28205   | 39  | 0.52092               | 0.58336                 | 0.39252                  | 0.27362                | 1.24376                |
| 2007        | 0.19048   | 42  | 0.82971               | 0.92918                 | 0.46469                  | 0.38374                | 2.2499                 |
| 2008        | 0.26667   | 60  | 0.58618               | 0.65645                 | 0.32142                  | 0.35063                | 1.22901                |
| 2009        | 0.34921   | 63  | 0.89534               | 1.00267                 | 0.26384                  | 0.59681                | 1.68456                |
| 2010        | 0.34328   | 67  | 1.16222               | 1.30154                 | 0.25952                  | 0.78109                | 2.16877                |
| 2011        | 0.40164   | 122 | 2.26713               | 2.5389                  | 0.18099                  | 1.77298                | 3.63571                |
| 2012        | 0.46939   | 49  | 2.194                 | 2.457                   | 0.25431                  | 1.48925                | 4.05364                |
| 2013        | 0.34043   | 47  | 0.96714               | 1.08308                 | 0.30412                  | 0.59748                | 1.96334                |
| 2014        | 0.2619    | 42  | 0.56733               | 0.63534                 | 0.38358                  | 0.30283                | 1.33295                |
| 2015        | 0.25      | 52  | 0.72275               | 0.80939                 | 0.35901                  | 0.4034                 | 1.62401                |
| 2016        | 0.19048   | 42  | 0.24923               | 0.2791                  | 0.46289                  | 0.11563                | 0.67372                |
| 2017        | 0.31818   | 44  | 0.71222               | 0.7976                  | 0.34001                  | 0.41162                | 1.54553                |
| 2018        | 0.1875    | 48  | 0.42422               | 0.47507                 | 0.42635                  | 0.20979                | 1.07579                |
| 2019        | 0.21053   | 38  | 0.44331               | 0.49646                 | 0.46113                  | 0.2063                 | 1.19473                |
| 2020        | 0.31429   | 35  | 0.65615               | 0.73481                 | 0.3847                   | 0.34953                | 1.54476                |
| 2021        | 0.21622   | 37  | 0.7772                | 0.87037                 | 0.44937                  | 0.36914                | 2.05219                |