Setting OFL and ABC for Wenchman

Shannon L. Cass-Calay
Southeast Fisheries Science Center
SSC Meeting
July 7-8, 2022

With slides from
Peter Hood
NOAA Southeast Regional Office

Adam Pollock
NOAA Southeast Fisheries Science Center

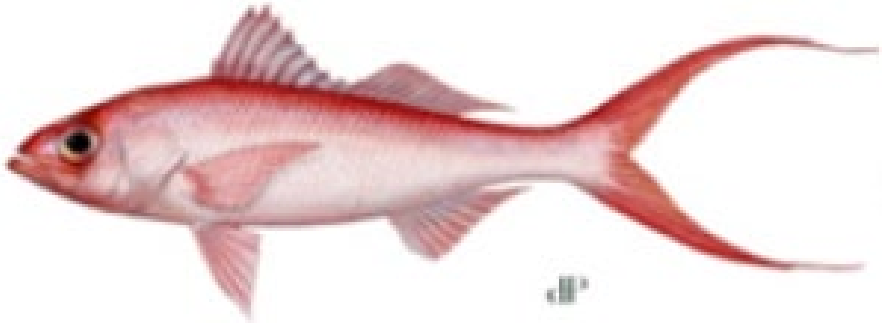
Mid-water Snapper Complex

Silk snapper

Blackfin snapper

Wenchman

Queen snapper



Wenchman

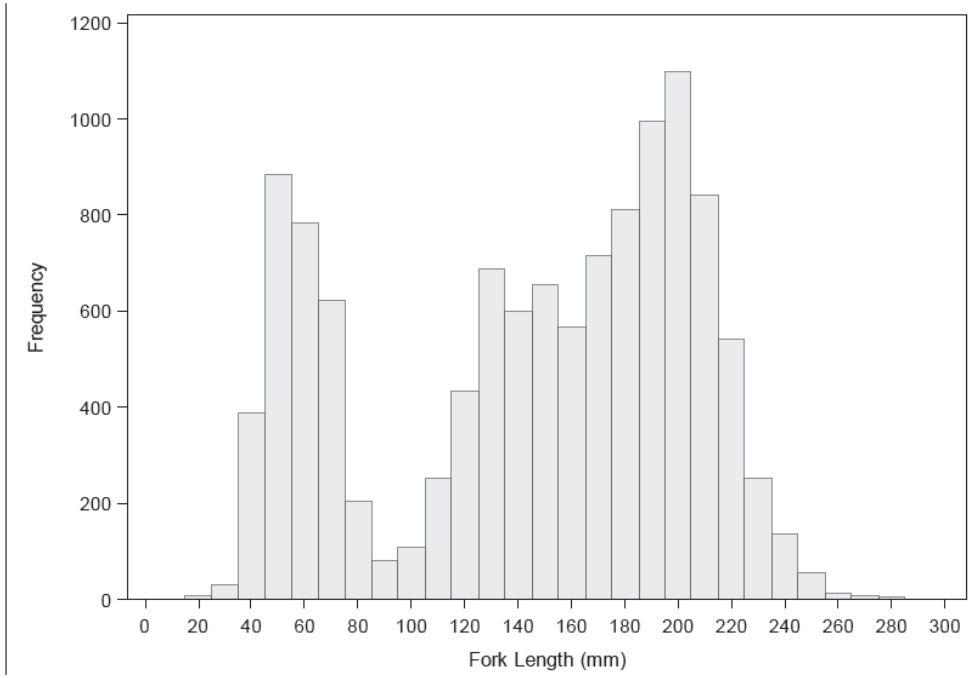


Figure 2. Length frequency histograms for Wenchman captured during MSLABS Small Pelagics surveys from 2002-2014.

From SEDAR 49

- Found over rough bottom (McEachran, and Fechhelm 2005)
- Depth range 24 - 370 m, usually 50 - 250 m (Fishbase), 24 – 488 m (McEachran, and Fechhelm 2005)
- Max length
  - 56.0 cm TL male/unsexed but commonly 20 cm TL (Fishbase)
  - 47.1 cm FL (NMFS Groundfish Survey)*
  - 56.0 cm FL (Commercial longline)*

*SEDAR 49

Wenchman

- Because few fishermen land wenchman, confidentiality issues make presenting landings information difficult.
- Recreational landings are negligible, and less than 0.2% of the total removals on average (2012-2020).
- Commercial landings mostly come from trawls (range 93-99% of the total between 2014 and 2020).

Mid-water Snapper

The 2011 Generic Annual Catch Limit and Accountability Amendment set the

- Overfishing limit (OFL)
- Acceptable Biological Catch (ABC)
- Stock Annual Catch Limit (ACL)
- Stock Annual catch target (ACT)

OFL and ABC based on 2000-2008 landings data (Tier 3a)

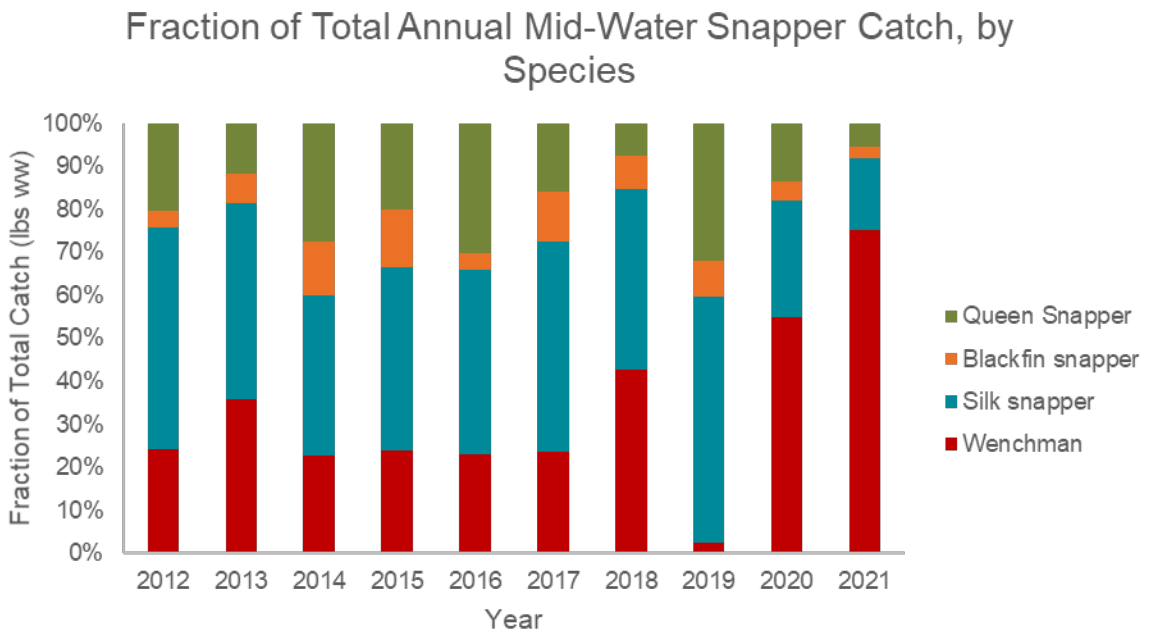
OFL	ABC	ACL	ACT
0.209 mp ww	**0.166 mp ww**	**0.166 mp ww**	**0.136 mp ww**

From Table 2.7.5.1.1. OFL and ABC specifications from SSC and ACL/ACT specifications from the Gulf Council.

- In order to consider a species-specific OFL and ABC for wenchman, the SSC must address several outstanding questions.

Question 1: Separate Wenchman from Mid-Water Snapper?

- Recently, wenchman catches are increasing relative to other members of the complex.
- Complex should include members with similar life history and vulnerability to fishery.
- Angler testimony that wenchman are often caught in association with butterfish and scad.



*2021 Landings Preliminary and only through November

Question 2: Continue to use Tier 3A?

- Tier 3 - No assessment is available, but landings data exist.
  - Tier 3A: Based on expert evaluation of the best scientific information available, ***recent historical landings are without trend, landings are small relative to stock biomass, or the stock is unlikely to undergo overfishing if future landings are equal to or moderately higher than the mean of recent landings***.
  - Tier 3B: Based on expert evaluation of the best scientific information available, ***recent landings may be unsustainable***.
- For stock complexes, the determination of whether a stock complex is in Tier 3a or 3b will be made using all the information available, including stock specific catch trends.

Updated Fishery Independent Wenchman Indices

Adam Pollack

NOAA Southeast Fisheries Science Center

SSC Meeting - July 2022

Wenchman

- Last assessed: SEDAR 49 – Data Limited Species, assessment was not used to develop management advice.
- Representative Index: SEFSC Small Pelagics Acoustic Survey
  - Full GOM coverage at depths where wenchman occur
  - High positive occurrence (~60%)
  - Time series: 2002 – 2013
  - Gear: High-opening bottom trawl
- Survey ended in 2016
  - 2014 and 2016 not included due to limited spatial coverage due to vessel breakdowns
  - No survey in 2015

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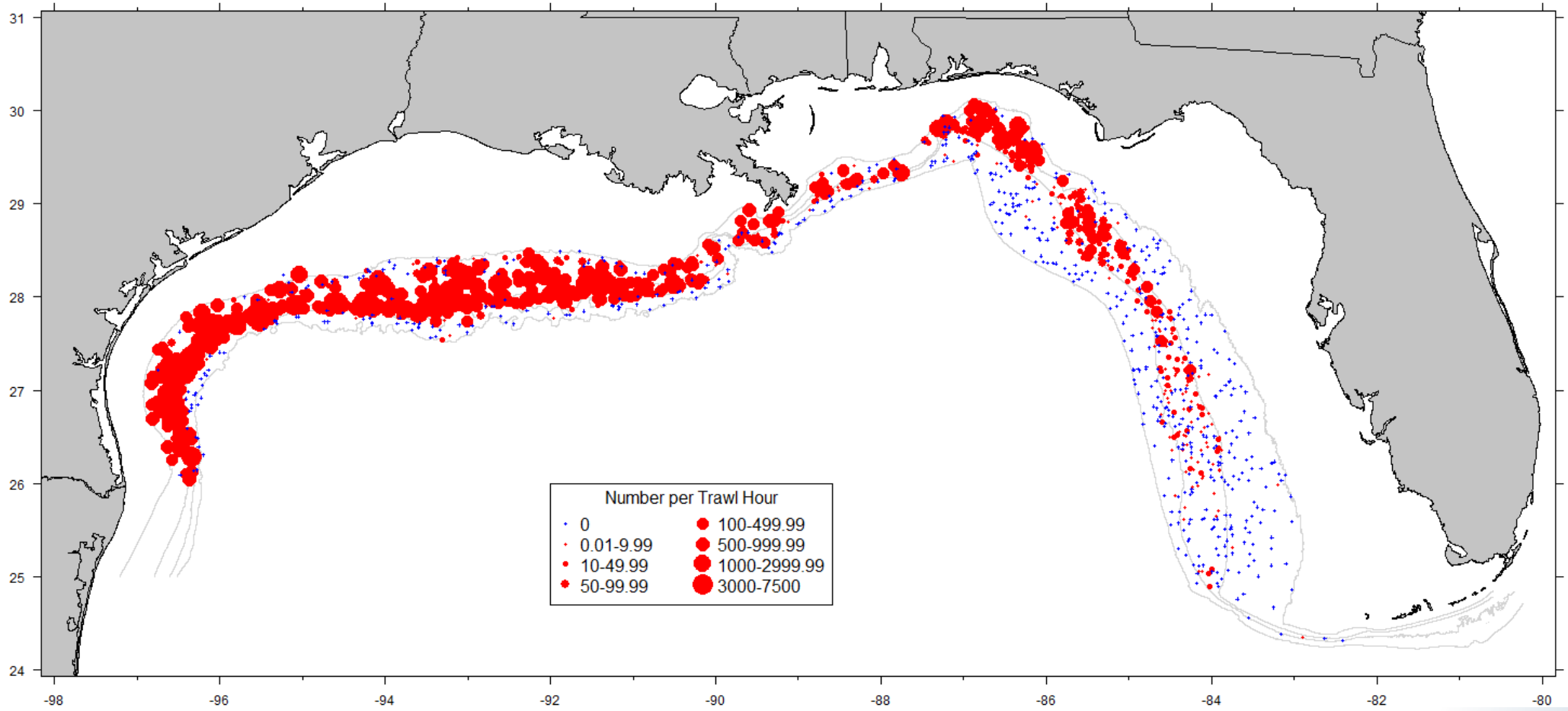
SEFSC Small Pelagic Acoustic Survey



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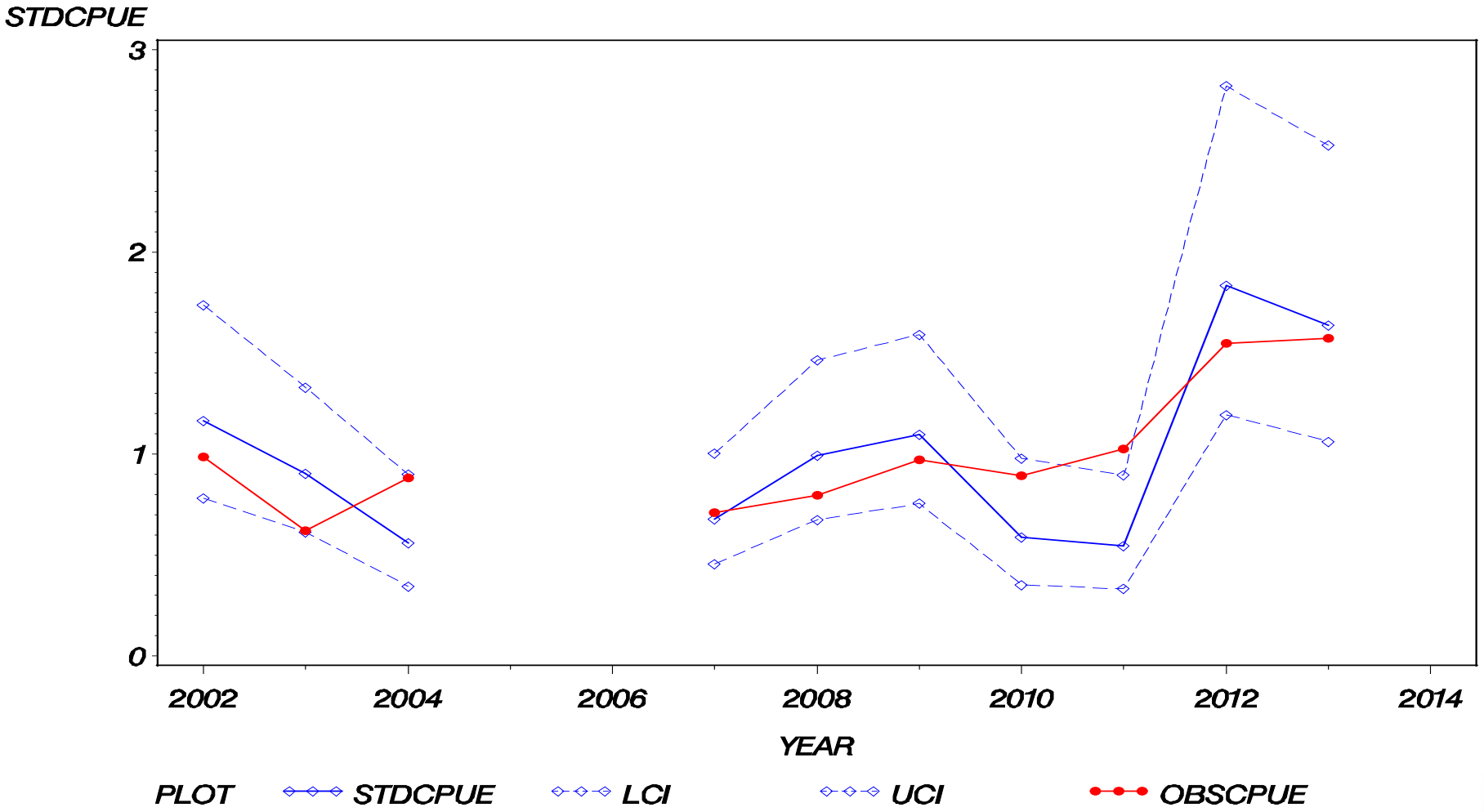
SEFSC Small Pelagic Acoustic Survey



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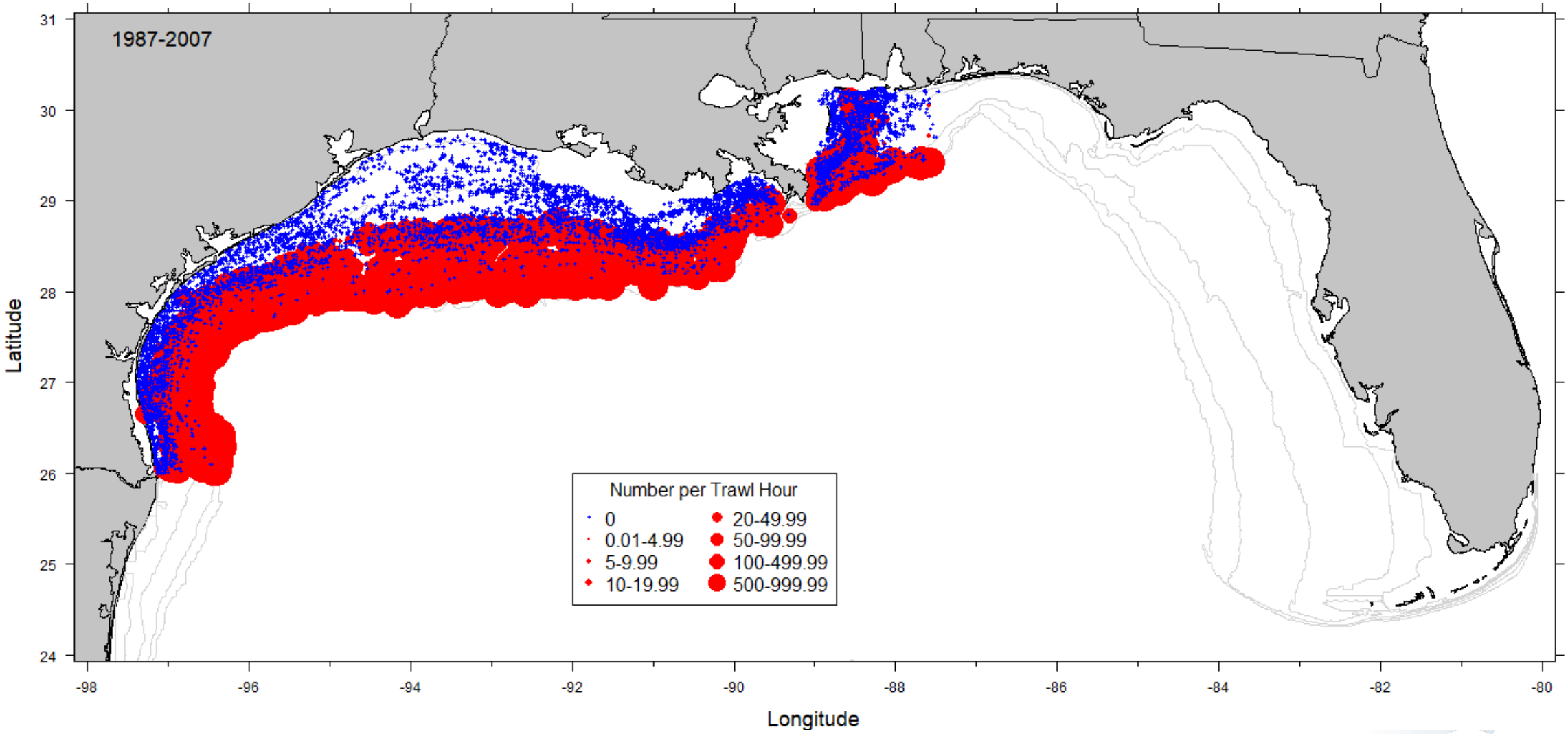
SEAMAP Groundfish Survey

- Primarily a western gulf index
  - Combined Summer and Fall survey data
- Split time series due to design change in 2008
  - Expanded sampling universe
  - Standardized 30 minute tow
- Allowed incorporation of data to Cape San Blas, FL
  - Previously index only used data to Mobile Bay, AL
- Low to no catch east of Cape San Blas, FL
  - Based on Pelagic Survey, wenchman appear to be deeper in eastern gulf (past the 110 m outer limit of groundfish survey)

SEAMAP Groundfish Survey (old design)



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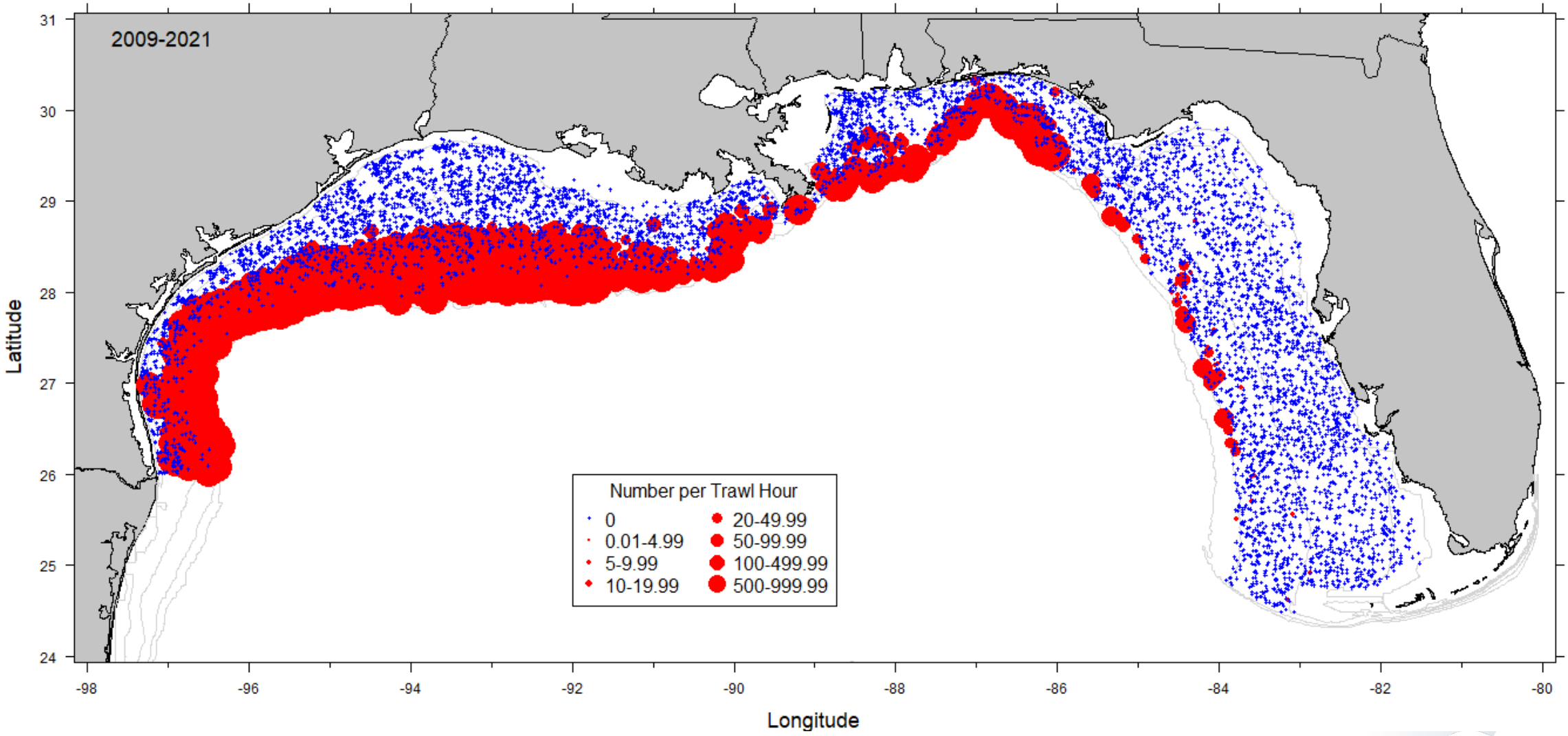
SEAMAP Groundfish Survey (new design)



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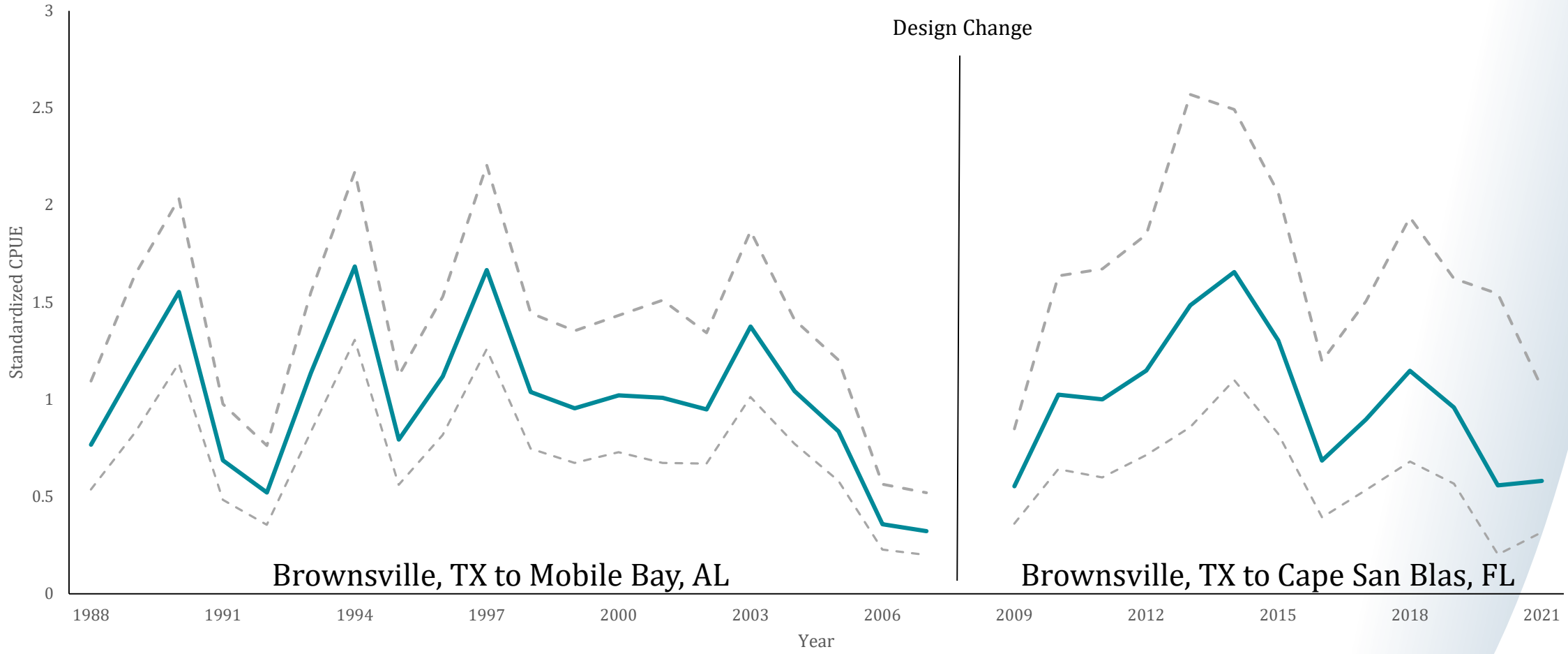
SEAMAP Groundfish (Summer and Fall)



* Each index is standardized to a mean of 1 within it's own time series

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SEAMAP Reef Fish Video Survey

- Primarily a western gulf index
- Updated through 2019 – last year of available data
- Samples high relief offshore natural reefs
- Similar to SEAMAP Groundfish Survey, low to no catch east of Cape San Blas, FL
- Low positive catch (~5%)
- See SEDAR 49 working paper for abundance plots
  - Campbell, M.D., K.R. Rademacher, P. Felts, B. Noble, J. Salisbury, J. Moser, R. Caillouet . 2016. SEAMAP Reef Fish Video Survey: Relative Indices of Abundance of Wenchman. SEDAR49-DW-20. SEDAR, North Charleston, SC. 21 pp. Link

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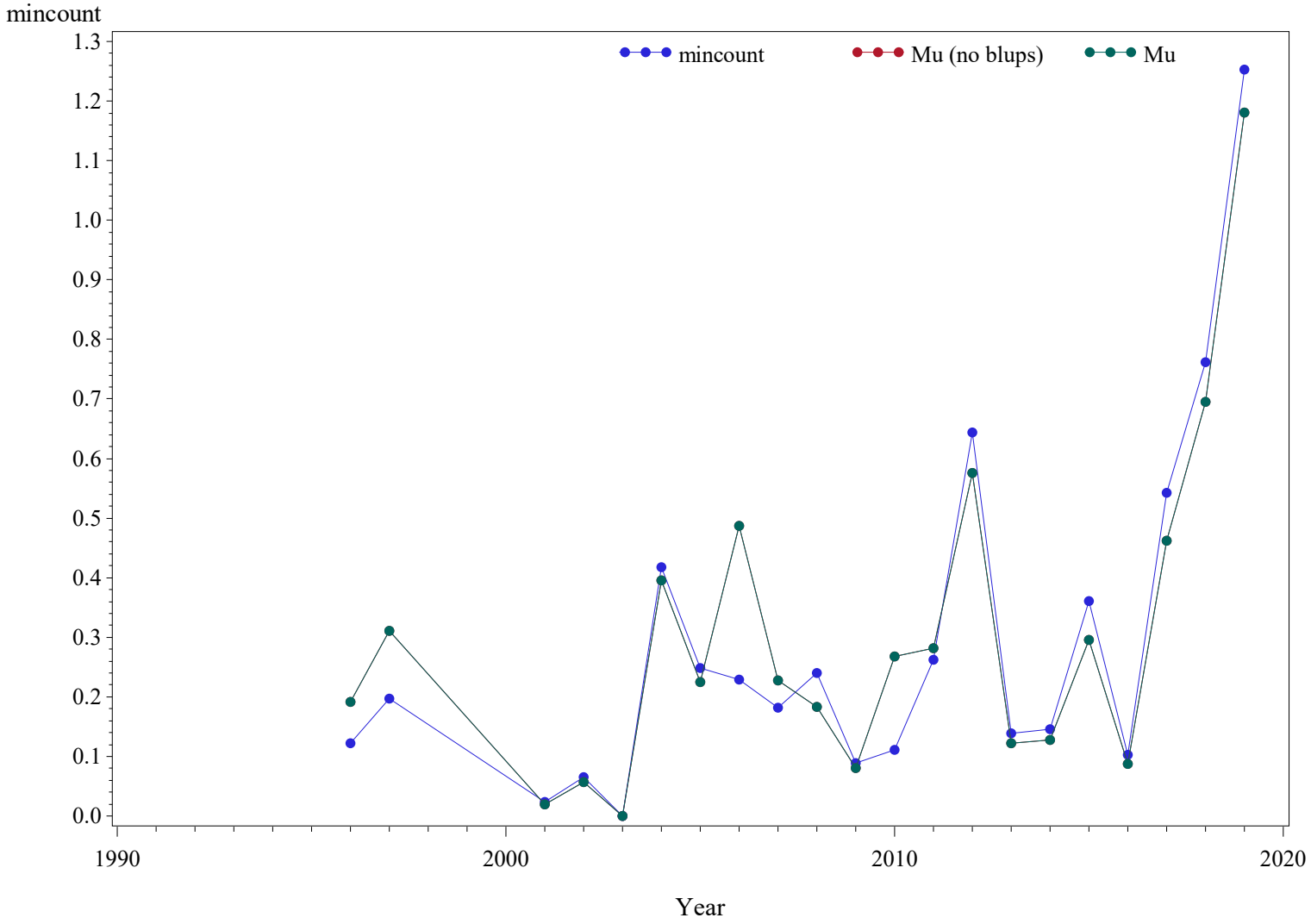
SEAMAP Reef Fish Video Survey



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Question 3: Reconsider reference years?

Current mid-water snapper OFL and ABC used *2000-2008* landings data (Tier 3a)

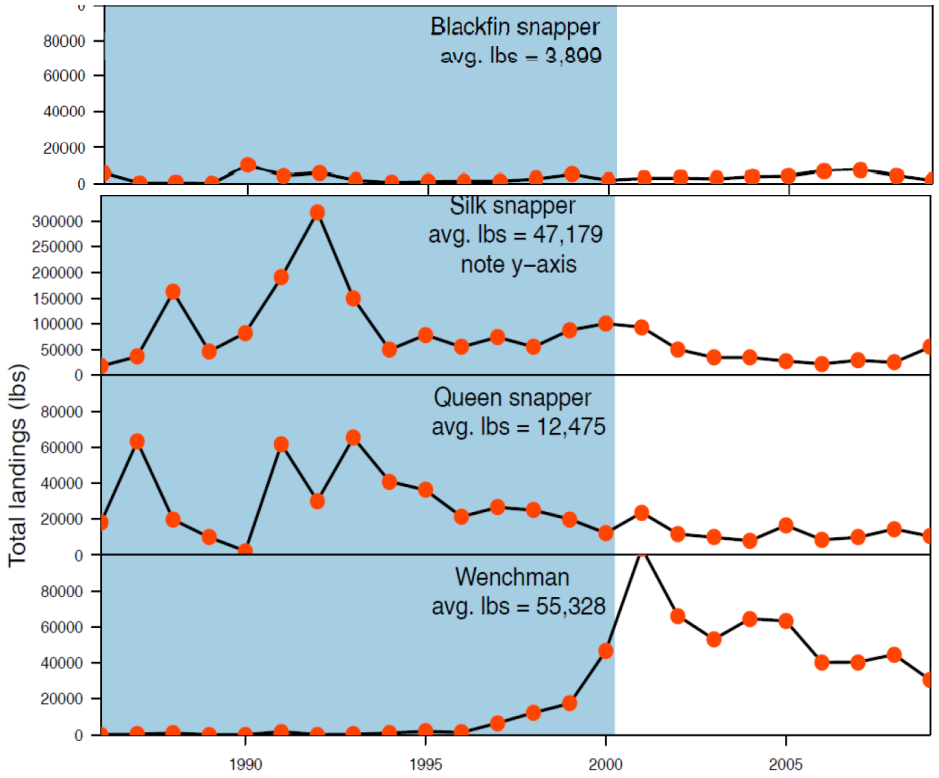

Figure 2.2.1d. Annual commercial and recreational landings of silk snapper, queen snapper, and wenchman in the Gulf of Mexico. (Average based on years 2000-2009.) Blue shaded area not used in calculation of average annual landings. (Source: Southeast Fisheries Science Center ACL datasets, 2010)

Source: 2011 Generic ACL Amendment

Final
Generic Annual Catch Limits/Accountability Measures Amendment
for the
Gulf of Mexico Fishery Management Council's
Red Drum, Reef Fish, Shrimp, Coral and Coral Reefs,
Fishery Management Plans

(Including Environmental Impact Statement, Regulatory Impact Review, Regulatory Flexibility Analysis, Fishery Impact Statement)

September 2011

Gulf of Mexico Fishery Management Council
2203 North Lois Avenue, Suite 1100
Tampa, Florida 33607
813-348-1630
813-348-1711 (fax)
888-833-1844 Toll Free
gulfcouncil@gulfcouncil.org
http://www.gulfcouncil.org

National Oceanic & Atmospheric Administration
National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701
727-824-5305
727-824-5308 (fax)
http://sero.nmfs.noaa.gov

Data confidentiality concerns…

- The Center, Council Staff and General Council are working to determine whether the recent wenchman and mid-water snapper landings are confidential under the MSA, and under what conditions it can be shared.
- The data are available and Center staff are prepared to assist the SSC to evaluate potential catch recommendations (i.e. OFL and ABC).

Question 4: Use default OFL and ABC? THIS SLIDE FOR TIER 3A

- OFL: Set the overfishing limit ***equal to the mean of recent landings plus two standard deviations***. A time series of at least ten years is recommended to compute the mean of recent landings, but a different number of years may be used to attain a representative level of variance in the landings.

- ABC: Set acceptable biological catch using a buffer from the overfishing limit that represents an acceptable level of risk due to scientific uncertainty. The buffer will be predetermined for each stock or stock complex by the Council with advice from the SSC as:

ABC = mean of the landings plus 1.5 * standard deviation	(risk of exceeding OFL = 31%)
ABC = mean of the landings plus 1.0 * standard deviation (default)	(risk of exceeding OFL = 16%)
ABC = mean of the landings plus 0.5 * standard deviation	(risk of exceeding OFL = 7%)
ABC = mean of the landings	(risk of exceeding OFL = 2.3%)

Question 4: Use default OFL and ABC? THIS SLIDE FOR TIER 3B

- OFL: Set the overfishing limit ***equal to the mean of landings***. A time series of at least ten years is recommended to compute the mean of recent landings, but a different number of years may be used to attain a representative level of variance in the landings.

- ABC: Set acceptable biological catch using a buffer from the overfishing limit that represents an acceptable level of risk due to scientific uncertainty. The buffer will be predetermined for each stock or stock complex by the Council with advice from its SSC as:

  ABC = 100% of OFL

  ABC = 85% of OFL

  ABC = 75% of OFL (default)

  ABC = 65% of OFL

Conclusions

- OFL and ABC for wenchman can be calculated rapidly if the SSC determines:
  - That it is appropriate to separate wenchman from the mid-water snapper complex
  - Which tier of ABC Control Rule to use
  - The reference years
  - The reduction from OFL to use to compute ABC

Questions