

**SEDAR 72 Assessment Workshop Webinar II**  
**Gulf of Mexico Gag**  
**May 17, 2021 from 1:00 PM to 3:20 PM**  
**Summary Report**

Recreational landings data for 1981-2019 were reviewed, with particular attention to a spike in landings in 1983. Historical landings prior to 1981, back to 1963, are estimated using the FHWAR method, which is generally less certain and higher than the more contemporary portion of the time series. These historic data do little to inform the spike in 1983. To resolve this spike, the analysts proposed replacing the 1983 data point with the geometric mean of the landings from 1981, 1982, 1984, and 1985. Further, a reapportionment of the historical recreational catch between the charter (10.5%), headboat (2%), and private vessel (87.5%) fleets results in a more plausible representation of historical catches.

Traditionally, recreational landings have been input in numbers, as collected by MRIP. However, the recreational harvest is monitored in pounds. This can result in differences between the ACL monitoring database landings and those estimated by SS. To avoid this, recreational landings would need to be input into the model as weight instead of numbers. Additional uncertainty may be inherent in landings reported in weight; catch CVs may need to be used as a surrogate.

Data from the combined video index were reviewed, which show a decline in the observations of gag from the mid-2000s to 2018, with an increase in 2019. Data for all three surveys are only available for 2010-present. Generally, the Panama City Laboratory video survey captures younger, smaller gag; the Pascagoula survey captures older individuals; and, the FWRI survey captures young and old individuals. To resolve small sample sizes from these surveys in some years and areas, a super-year approach can be used to fix gear selectivity and reduce noise in the data. Another approach would be to consider the video survey indices separately for gag. The AW Panel discussed weighting the individual surveys, and acknowledged that they all seemed to be capturing the same general trends. The Pascagoula survey covers more area latitudinally; however, the FWRI survey canvasses inshore to offshore habitats. Considering all of these surveys may better represent the changes by length in the gag stock over time. ***The AW Panel ultimately decided to move forward with all three indices individually, applying the Francis reweighting method to better credit each survey within the combined index.*** Sensitivity runs using the combined index, and removing the FWRI index, will be explored. Further, 2005 was not a spatially representative year for the Panama City video survey; ***the AW Panel recommended excluding this year from further analyses.***

The State of Florida's Gulf Reef Fish Survey (GRFS; now State Reef Fish Survey) will be considered in a sensitivity to evaluate the use of GRFS for recreational catch and effort. GRFS uses APAIS and supplemental surveys to estimate catch, and the data from those supplemental surveys also help inform effort.

Other sensitivity runs include replacing the new vector for natural mortality with the vector from the SEDAR 33 Update assessment, and the treatment of red tide in 2005 and 2018. The AW

Panel postulated that the model may suppose a recruitment deviation in years with substantial red tide mortality, and suggested that some simulation work may be useful to investigate this hypothesis.

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| Assessment Webinar III will be held the week of June 14, 2021 |
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Participants:

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