

**SEDAR 72 Assessment Workshop Webinar I**  
**Gulf of Mexico Gag**  
**April 22, 2021 from 1:00 PM to 3:20 PM**  
**Summary Report**

All data for the model were received, and the analyst described an update to the previous SEDAR 33 Update model to include the new recreational catch and effort data in MRIP-FES data currency. The data include the years 1963 – 2019, with two commercial fleets (vertical line and longline) and three recreational fleets (charter, headboat, and private angling). FES data result in larger (2x+) predicted landings for the private angling fleet, with not dissimilar estimates for the headboat and charter fleets from 1985 to present. Discards followed a similar trend as landings by fleet with the inclusion of the FES data. The AW Panel asked about the proportion of the combined private vessel and shore landings attributable to the shore mode, noting that most shore catches should be regulatory discards. These data were extracted and summarized, with 2.3% of recreational landings and 8.6% of recreational discards being attributed to the shore mode. The AW Panel also asked about the charter and headboat fleet landings prior to 1981, which are generally much larger than the remainder of the time series. These data use days at sea and assumptions about the proportion of recreational landings attributable to each fleet to generate estimates of historical landings. ***The AW Panel expressed doubt about these historical landings, which were strongly influenced by a very small sample of intercepts. It was recommended that these pre-1986 recreational landings and discards data be revisited.*** A weighted average for those years was proposed as a way to address years with a low number of intercepts therein.

Length composition data are available from all directed fleets, with age composition data available from the recreational fleets, and conditional age-at-length compositions available from the commercial fleets. Gag is thought to be mature beginning at age-2, with 50% of females being sexually mature at 3.9 years old. Gag begins to change sex from female to male as early as age 4, with 50% of females expected to transition to male by 11.6 years old.

Commercial landings are input as weight in metric tons, with discards input as 1000s of fish. Commercial landings are thought to be known ( $CV < 0.05$ ), with discards using a CV of 0.2. The longline fleet tends to select for larger and older gag than the vertical line fleet. A commercial captain noted that the vertical line fleet has access to the same habitats as the longline fleet; however, vertical line fishermen tend to remain in shallower waters, catching more, smaller fish. Longline fishermen aren't allowed to deploy longline gear in waters shallower than 120 feet, so they cannot access much of the areas available to vertical line fishermen. The analyst will update the selectivity curves to reflect this information. Commercial discards data are subject to sample size issues due to low coverage from the Reef Fish Observer Program. Time blocks are used to consider regulatory effects (e.g., seasons, trip limits, IFQ). Residual patterns suggest the model is overestimating the proportion of fish below the size limit being retained throughout the time series, but particularly after 1990. Age composition data, for all fleets, suggest a possible recruitment failure in 2011. FWC survey data for juvenile gag corroborate this possible 2011 recruitment failure.

Recreational landings and discards are input as 1000s of fish. Recreational landings are thought to be known ( $CV < 0.05$ ), with discards using a CV of 0.2. Selectivities for the recreational fleets are dome-shaped; these fleets don't select as often for the smallest or largest individuals, but rather those individuals close to and over the minimum size limit. Fish below the minimum size limit are expected to be discarded, with fish larger than the minimum size limit discarded due to regulatory retention limits. The recreational fishing season from 2011 through 2015 was much shorter than previous and subsequent years, with the number of sample sizes being lower for collecting data on the length composition of those fish. ***The AW Panel suggested using time blocks to address differences in the number of recreational fishing days and its effect on the length composition of recreational discards.*** Private vessels are projected to catch and keep slightly smaller gag, on average, compared to the for-hire fleets. The analyst suggested exploring private vessel selectivity independent of the for-hire fleets.

The combined video surveys (NMFS Panama City, NMFS Pascagoula, and FWC FWRI) were reviewed. Complications have arisen with the use of this survey, since gag is thought to move further offshore as it gets older. The NMFS Panama City video survey targets the inner shelf, while the NMFS Pascagoula video survey targets deeper shelf-break waters. The FWRI survey covers both areas off west central Florida. Little length composition data are available for the video surveys, with most of these data coming from the NMFS Pascagoula video survey. Differences in the length composition data for gag from these video surveys may necessitate examining these surveys separately. FWRI data are more comprehensive across depth, but fewer length composition data exist therein. NMFS Panama City data may also be informative for tracking recruitment of juveniles.

Assessment Webinar II will be held on May 17, 2021, at 2 pm eastern time
--

Participants:

Adam Pollack  
Beverly Barnett  
Beverly Sauls  
Bob Gill  
Carole Neidig  
Claudia Freiss  
Daniel Roberts  
Dave Chagaris  
Dominique Lazarre  
Ed Walker  
Eric Schmidt  
Francesca Forrestal

Jeff Pulver  
Jim Eliason  
Jim Nance  
Julie Neer  
Katherine Overly  
Katie Siegfried  
Kelly Fitzpatrick  
Ken Brennan  
Kevin Thompson  
LaTreese Denson  
Lisa Ailloud  
Luiz Barbieri

Matt Campbell  
Matt Nuttall  
Mike Drexler  
Molly Stevens  
Ryan Rindone  
Skyler Sagarese  
Sue Lowerre-Barbieri  
Ted Switzer  
Vivian Matter