

SEDAR 62 Assessment Webinar II
Gulf of Mexico Gray Triggerfish
July 17, 2019 from 2:00 PM to 2:45 PM
Summary Report

The conversion to a length-based model from an age-based model has been completed, and the updated growth data from the Patterson lab has just been received by the analysts. An updated growth curve is in development. Preliminary growth curves have been provided by the Patterson lab.

The model time series begins in 1945 and terminates in 2017, with one area and one season. Sexes are combined for life history functions, with a maximum age of 10. Lengths are input into the model in 2 cm bins from 2-74 cm. Shrimp discards are set in two super-year periods pre- and post-1971. Four regulatory time blocks are used for minimum size limits and seasonal closures. Steepness is fixed at 0.97, and discard mortality is fixed at 25%.

Fits to discard data have been problematic, since seasonal closures have resulted in large numbers of discards above the minimum size limit. This effect is particularly pronounced in the western Gulf. Other fits to indices are improved, following subtle model tweaking.

One outstanding issue (beyond the need to rework the growth curve) is the inordinate amount of time the model requires to converge, likely due to conflicts between the indices. Weighting factors will be explored to discover potential improvements in this area. A base model and diagnostics are anticipated for the September webinar (Assessment Webinar III).

Dr. Will Patterson presented the results of aging 521 gray triggerfish (294 females, 199 males, 28 unknown). Growth curves were separated by sex and then combined. Males are typically, but not always significantly, larger than females (size at age). Preliminary von Bertalanffy growth functions were presented by sex and for sexes combined. Differences were also observed between fishery-independent and fishery-dependent sourced samples.

Assessment Webinar III will be held the week of September 4, 2019 at 10 AM The completed stock assessment report is due to the Council on October 18, 2019

Participants:

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