

SEDAR 68 Stock ID Webinar II
Gulf of Mexico and Atlantic Scamp
September 10, 2019 from 10:00 AM to 12:00 PM
Summary Report

Life History Working Group

Scamp and Yellowmouth Grouper ID Issues

The Life History Working Group (LHWG) used several resources to investigate the identification issues between scamp and yellowmouth grouper. One of the most tell-tale differences is yellow coloration inside and outside of the mouth for yellowmouth grouper (only outside for scamp), and uneven caudal rays for scamp versus even caudal rays for yellowmouth grouper. However, at the larval and juvenile life stages, the species are both very similar. As they grow, differences in lateral line scale counts can be discerned, but it is unlikely that this identification method could be effectively employed by dockside samplers. Also, generally speaking, it is expected that visual survey methods may have difficulty in differentiating between scamp and yellowmouth grouper in video data. Further, seafood dealers offer the same price for both, limiting the probability of differentiation on seafood dealer reports.

Comparing Otoliths between Scamp and Yellowmouth Grouper

The otolith data presume that each species' otoliths correspond to the correct species. There is little to visually differentiate otoliths between the two species from sectioned or unsectioned otoliths. Otoliths will not prove reliable for differentiating between the two species.

In short, the LHWG finds that the two species are too similar to accurately differentiate. Further, the LHWG does not find evidence supporting stock delineation or distribution contrary to the current management structure.

Genetics Working Group

The Genetics Working Group (GWG) has analyzed length data, and sequenced and genotyped "known" (based on field identifications) yellowmouth grouper samples for comparison to scamp. The sequenced samples (n=9) proved to include a mix of yellowmouth grouper and scamp. The same nine samples were genotyped, and revealed the possibility of hybridization between the two species between the Gulf of Mexico and the Atlantic, suggesting a single genetic population; however, genetic homogeneity does not mean that individual animals are moving from one basin to the other (adults exhibit high site fidelity). Data from the west coast of Florida are robust, but do not include enough samples from Monroe County to infer any relationship to the Atlantic. Directionality of gene flow is unknown, and any gene flow is likely pelagic and larval in nature.

The GWG agreed that stock structure must be treated with caution, as genetic homogeneity could not be refuted. The GWG did not recommend changing the current stock boundary for management, but cautioned inferring a biological boundary in the absence of conclusive genetic data to support such a decision.

Spatial Distribution and Movement Working Group

The Spatial Distribution and Movement Working Group (SMWG) analyzed the results the FWRI Tag-Recapture Program, which uses charter vessels to tag fish, finding only 55 tag returns reported and only 25 reported with location data. Of those with location data, 16 moved less than 10 miles from their tag location.

Visual-based fishery-independent surveys from Gulf stereo cameras, the Florida Keys visual census, and the South Atlantic SERFS trap camera survey were analyzed, and produced differing abundance metrics. For this reason, presence/absence was plotted across surveys for comparison for 2011 – 2017. These data did not do much to inform the SMWG about the movement of scamp; however, scamp do appear distributed throughout the Gulf and South Atlantic. Data from the Southeast Region Headboat Survey supported this conclusion about distribution.

Commercial landings from 1980 – 2018 show scamp throughout the Gulf and South Atlantic. Data from 1980 – 1986 were included assuming that the scamp coded in the Accumulated Landings System were properly identified as scamp at that time, and were not lumped into “uncategorized groupers”. The Stock ID group thought plotting landings per trip as a metric for catch-per-unit-effort would be informative. Staff at the Southeast Regional Office will provide species-specific catch and effort data for scamp for the requested time series to the SMWG.

The SMWG recommends no change in the current stock management structure for scamp.

In summary, the current recommendation from the Stock ID Working Group is to conduct separate stock assessments for the Gulf of Mexico and the South Atlantic for scamp, with the stocks divided at the Council jurisdictional boundary.

The final Stock ID Report will be due on October 18, 2019

Participants:

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