

APPENDIX A. GULF LANE SNAPPER MINIMUM SIZE LIMIT, AND SEASON PREDICTION ANALYSIS

The Gulf Council (Council) recommended changes to the lane snapper minimum size limit for both the commercial and recreational sector to the National Marine Fisheries Service (NMFS) in August 2025. The Gulf of America (Gulf) lane snapper fishery has experienced high landings in recent years which has led to closures due to the Annual Catch Limit (ACL) being reached or projected to be reached. New regulations relative to the lane snapper minimum size limit are being considered by NMFS to reduce harvest and avoid quota closures. The minimum size limits (current and proposed) were analyzed and compared to predicted landings, in conjunction with the catch limit increase proposed in Chapter 1, to determine if they will collectively prevent landings from exceeding the ACL in the future.

Minimum Size Limit Analysis for the Commercial Sector

The current minimum size limit for the commercial sector is 8 inches total length (TL). The Council has recommended increasing the minimum size limit to 10 inches TL. The Trip Interview Program (TIP) collects detailed commercial fisheries information at the individual trip level. TIP data have both lengths and weights for lane snapper harvested in the commercial sector; however, some lane snapper TIP samples only have length data available. Weight estimates were generated for TIP-collected lane snapper samples that only had length and no weight data by applying the weight-length equation from SEDAR 49 (2016). Figure A1 provides the distribution of harvested lane snapper from the commercial sector from 2023 to 2025.

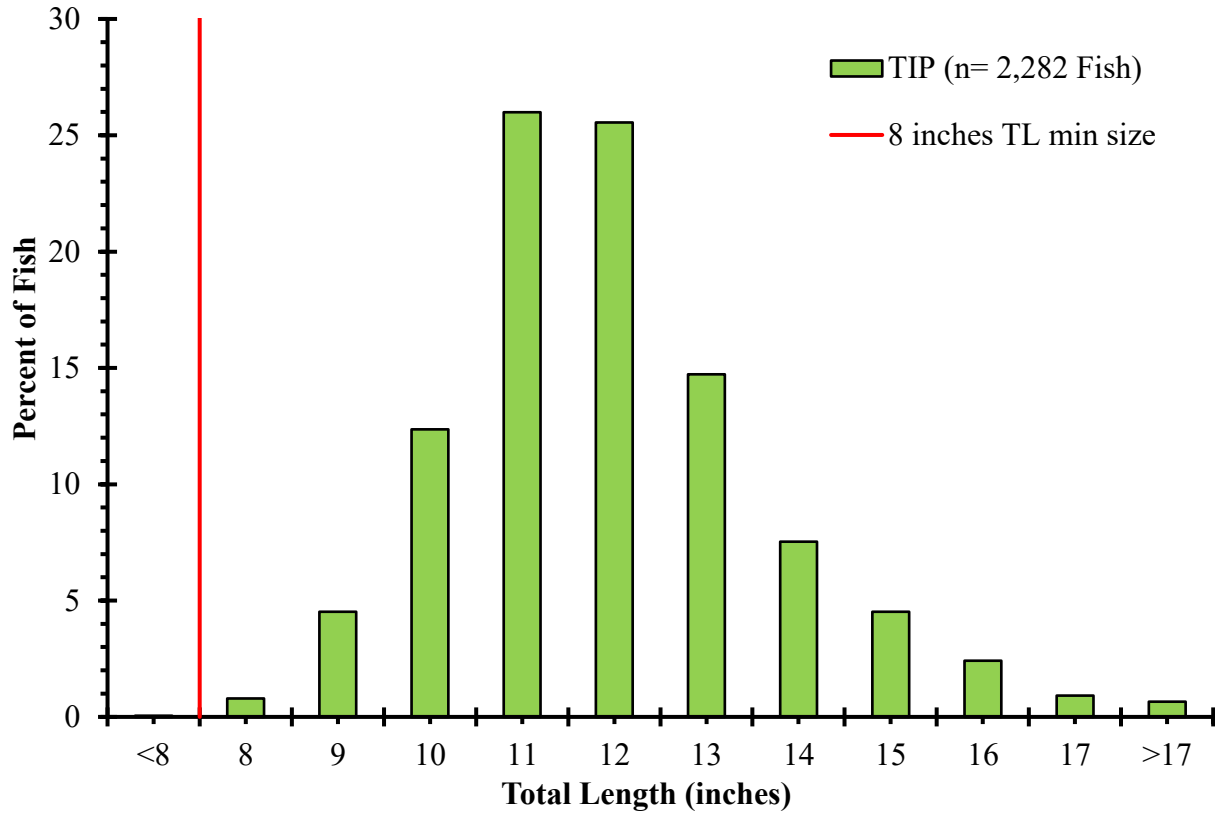


Figure A1. Distribution of the Gulf commercial lane snapper harvested by length bin. Data come from the TIP program from 2023 through 2025. The red line is the current minimum size limit of 8 inches TL.

The commercial ACL is set in pounds, so a percent reduction of landings in pounds was done to match the ACL. Percent reductions in harvest weight were calculated by imposing the Council-recommended minimum size limit of 10 inches TL. The analysis assumed that harvest of lane snapper less than 10 inches TL would cease because these fish would be released if the 10-inch TL minimum size limit is implemented. Percent reductions in landings came from comparing the sum of fish weights excluding fish under 10 inches TL to the total weight of all caught lane snapper using the equation of:

$$\text{Percent Reduction} = (\text{Adjusted Weight} - \text{Total Weight}) / (\text{Total Weight})$$

where Adjusted Weight is the sum of the weight of all the lane snapper minus the weights from the lane snapper under 10 inches TL, and Total Weight is the sum of the weight of all lane snapper samples. The results of the percent reduction in the commercial landings for increasing the minimum size limit from 8 to 10 inches by dataset are shown in Table A1.

Table A1. Estimated percent reduction in Gulf lane snapper commercial landings from increasing the minimum size limit from 8 to 10 inches TL. Data come from the TIP program from 2023 to 2025. The current minimum size limit is 8 inches TL.

Minimum Size Limit	Percent Reduction in Landings
8 inches TL (Status Quo)	0.0%
10 inches TL	2.3%

Minimum Size Limit Analysis for the Recreational Sector

Like the commercial sector, the current minimum size limit for the recreational sector is also 8 inches TL. The Council recommended an increase in the recreational minimum size limit to 10 inches TL. This potential regulation change was analyzed with the Gulf recreational datasets of Texas Parks and Wildlife Department’s Marine Sport-Harvest Monitoring Program (TPWD), Louisiana Department of Wildlife and Fisheries’ recreational creel survey (LA Creel), Southeast Region Headboat survey (Headboat), and Marine Recreational Information Program (MRIP). The datasets were explored to determine the size of lane snapper that were harvested. Figure A2 provides the distribution of Gulf lane snapper harvested in the recent time period of 2023 through 2025.

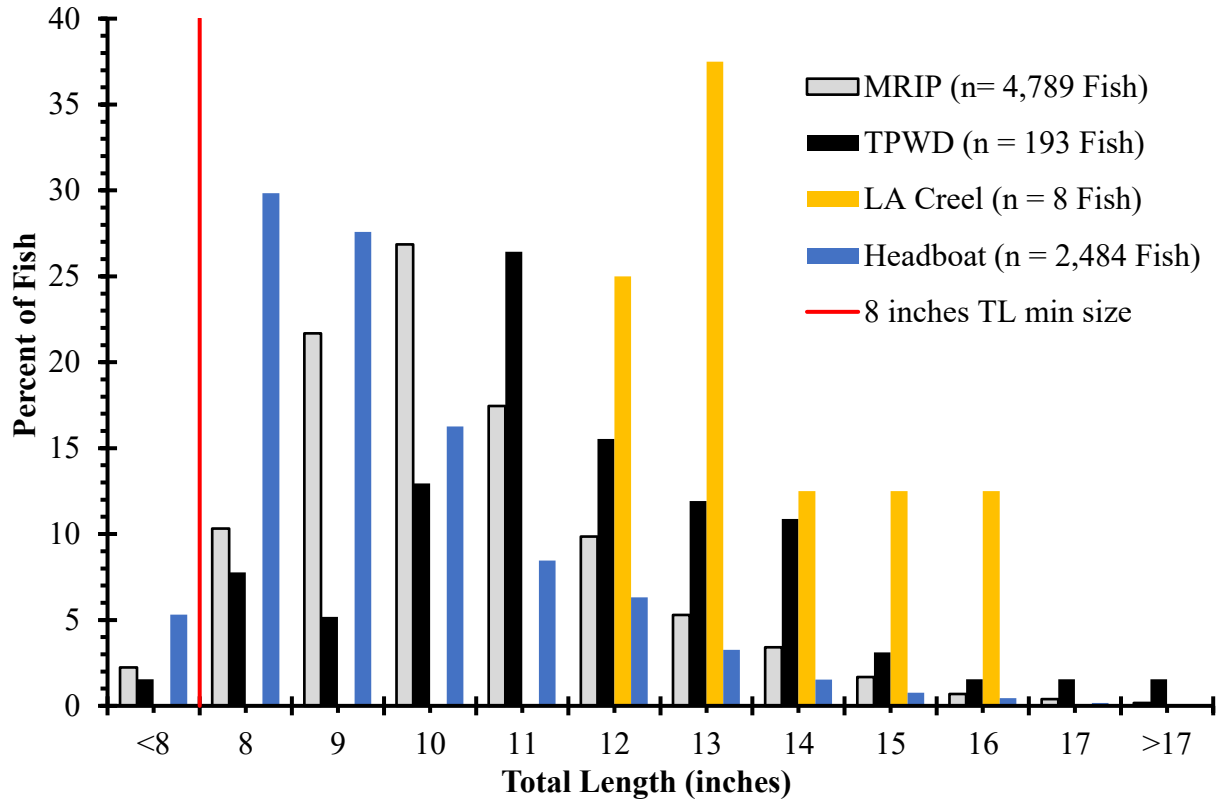


Figure A2. Distribution of the Gulf lane snapper harvested in the recreational sector by size bin. Data come from recreational intercept data from TPWD, LA Creel, Headboat, and MRIP from 2023 through 2025. The red line is the current minimum size limit of 8 inches TL.

Like the commercial sector, the recreational ACL is set in pounds, so a percent reduction of landings in pounds was done to match the ACL. The same method of determining the percent reduction in weight from increasing the minimum size limit to 10 inches TL as previously described for the commercial sector was also applied to the available recreational data. These results are shown in Table A2. LA Creel had a 0% percent reduction because all of the recent lengths of lane snapper captured by this survey were greater than the minimum size limit scenarios considered.

Table A2. Estimated percent reduction in Gulf lane snapper landings for the four recreational surveys from increasing the minimum size limit from 8 to 10 inches TL. Data come from recreational intercept data from TPWD, LA Creel, Headboat, and MRIP from 2023 through 2025. The current minimum size limit is 8 inches TL.

Minimum Size Limit	TPWD	LA Creel	Headboat	MRIP
8 inches TL (Status Quo)	0.0%	0.0%	0.0%	0.0%
10 inches TL	13.0%	0.0%	41.7%	32.0%

To make the minimum size limit percent reductions by dataset easier to comprehend, the percent reductions were combined into one percent reduction. This was done by weighting the percent reductions in Table A2 by the percent of recreational landings generated by each dataset from 2023 through 2025. Table A3 shows the percent of commercial and recreational landings

generated by each dataset. The majority (>90%) of the Gulf lane snapper stock landings come from MRIP.

Table A3. Gulf lane snapper total landings (commercial and recreational) for the commercial sector and the four recreational surveys from 2023 through 2025. The landings are in pounds whole weight (lb ww) and percent of the total landings.

Data Source	Sum of Landings (lb ww)	Percent
Commercial Sector	85,841	2.4%
TPWD	4,823	<1%
LA Creel	4,180	<1%
Headboat	108,041	3.0%
MRIP	3,441,062	94.4%
Total	3,643,947	100%

Predicted Landings

The Gulf lane snapper stock is monitored by combining the commercial and recreational landings against a single stock ACL. The fishing season for this stock has been closed one out of the past three years because the ACL was met or projected to be met. These quota closures were based on the current ACL of 1,088,873 lb ww. Herein, the Council is considering a Framework Action to increase the ACL to 1,304,917 lb ww, in response to updated catch advice from the Council’s Scientific and Statistical Committee. Additionally, an increase to the minimum size limit to 10 inches TL was recommended to NMFS by the Council in August 2025. The percent reductions in harvest from the minimum size limit changes above are applied here to the predicted future landings to determine if the ACL will be met. Therefore, an estimate of predicted future landings are needed.

This Abbreviated Framework would increase the Gulf lane snapper ACL from 1,088,873 lb ww to 1,304,917 lb ww. The average of the combined commercial and recreational landings for each year for the recent years of 2023 and 2025 did not exceed the higher proposed ACL. However, combined commercial and recreational landings in 2024 were higher than the proposed ACL. A summary of recent cumulative lane snapper landings is shown in Figure A3.

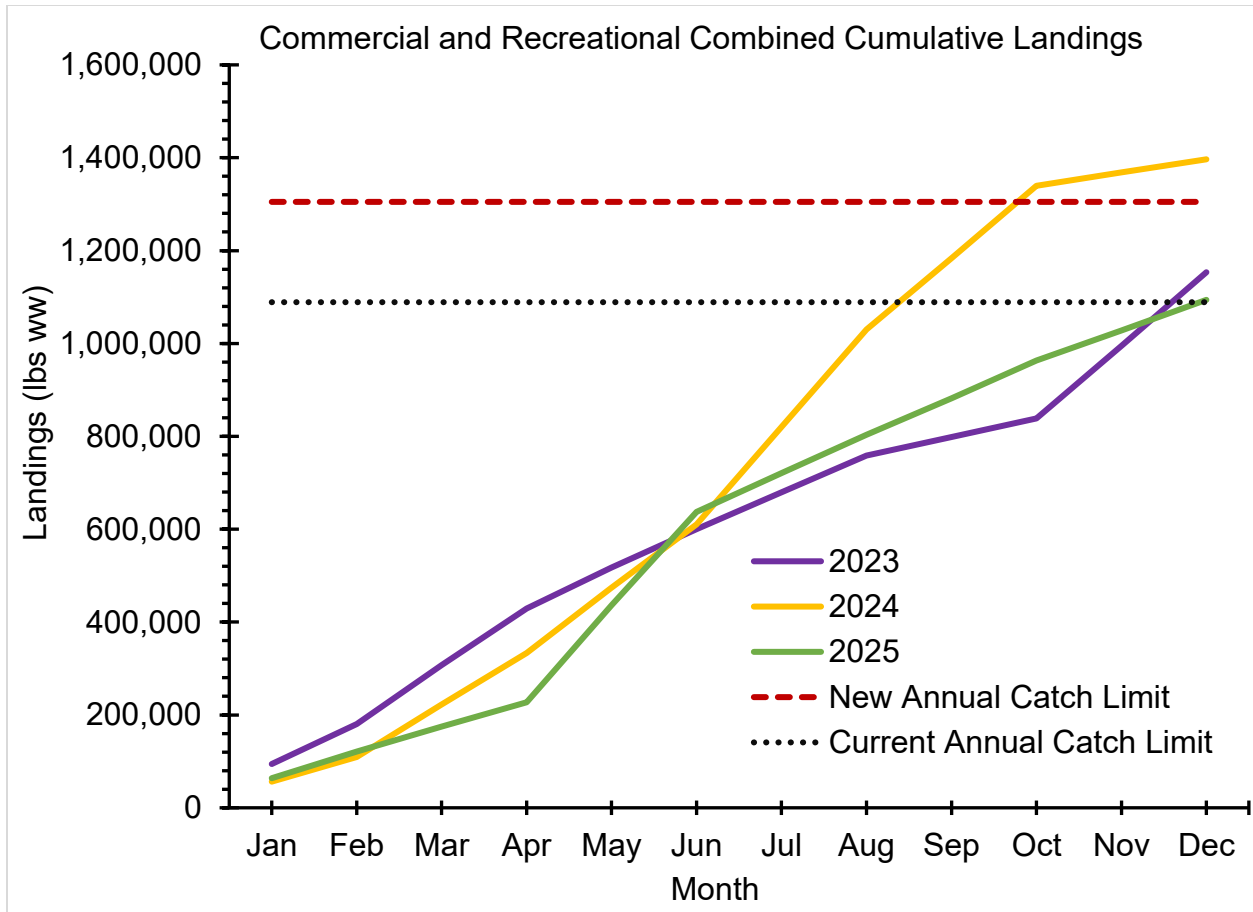


Figure A3. Gulf lane snapper commercial and recreational cumulative landings by month from 2023, 2024, and 2025. The black dashed line is the current ACL of 1,088,873 lb ww, and the red dashed line is the proposed ACL of 1,304,917 lb ww.

Landings before 2025 are final, and 2025 landings are preliminary. To capture a range of landings options two different landings scenarios were used to reflect future landings. The first scenario is an average of 2023, 2024, and 2025 landings. However, in 2024 both the commercial and recreational sectors were closed to harvest on November 26, on account of the ACL being projected to be met. The November 2024 landings were modified for this closure analysis by calculating a daily catch rate based on the open days in November 2024 and applying that catch rate to the entire month. However, since the Gulf lane snapper fishery was closed for all of December 2024, a prediction of landings for this month came from an average of the December 2023 and 2024 landings. The second scenario only uses the 2024 landings to reflect a maximum landings situation since only the recent year of 2024 had landings that exceeded the proposed ACL of 1,304,917 lb ww.

Combining reductions from the minimum size limit to predicted landings to evaluate if the ACL will be met

The percent reductions in harvest from the minimum size limit were calculated for the commercial sector and for the four recreational surveys. These minimum size limit percent reductions were weighted by the percent of landings from the directed fleet surveys (Table A3)

and applied to the two different landings scenarios. Table A4 provides the results of weighting each percent reduction by the proportion of landings contribution.

Table A4. Estimated percent reduction in Gulf lane snapper landings calculated from weighting the percent reduction from the commercial and four recreational surveys from the proportion of landings each contributed to the total Gulf lane snapper landings. Generated from data from 2023 through 2025. The current minimum size limit is 8 inches TL.

Minimum Size Limit	Overall Harvest Reduction
8 inches TL (Status Quo)	0.0%
10 inches TL	31.5%

The predicted landings per day for each of the two scenarios were cumulatively summed to determine when and if the current and future ACLs were projected to be met. The predicted landings were reduced by the percent reductions in Table A4 to account for potential changes in landings due to the minimum size limit change. Table A5 provides the closure dates when and if the current or proposed ACLs were projected to be met. The current ACL is expected to be met as early as September 12 and the proposed ACL is expected to be met as early as October 25. However, when accounting for the minimum size limit increase to 10 inches TL, neither ACL is expected to be met.

Table 5. Predicted closure dates when the current and future ACLs are expected to be met for the Gulf lane snapper stock with changes to the size limit.

Regulation	ACL of 1,088,873 lb ww	ACL of 1,304,917 lb ww
Average 2023, 2024, and 2025 Landings		
8 inches TL (Status Quo)	19-Oct	No Closure
10 inches TL	No Closure	No Closure
Only 2024 Landings		
8 inches TL (Status Quo)	12-Sep	25-Oct
10 inches TL	No Closure	No Closure

One of the landings scenarios assumes the high Gulf lane snapper stock landings that were observed in 2024 would continue in the future. If future landings are lower and similar to 2023 and 2025, then the proposed ACL is not expected to be met even without any change to the minimum size limit. However, if future landings are similar to the landings in 2024, then the Council’s recommended change to a minimum size limit of 10 inches TL is expected to prevent the ACL from being met.

References

SEDAR 49. 2016. SEDAR 49. Gulf of Mexico Data-limited Species: Red Drum, Lane Snapper, Lesser Amberjack. North Charleston, South Carolina.