

### Preliminary Gulf Red Snapper State Private Quota Estimates

SERO was tasked with providing preliminary adjustments to state red snapper quotas based on the best available data. For each state, a single annual ratio between the state data collection program and the Marine Recreational Information Program (MRIP) Coastal Household Telephone Survey (CHTS) landings was estimated. The current state red snapper sub-quotas are based on the 2018 stock assessment (SEDAR 52), which used MRIP CHTS landings data for computing ACLs. For Alabama, Florida, and Mississippi the five-year average of the annual landings was used to estimate a ratio between MRIP CHTS and Fishing Effort Survey (FES) landings in numbers of fish to adjust ratio estimates between state programs and MRIP FES. State sub-quotas in MRIP FES units were then adjusted downward based on MRIP FES to state calibration ratios developed for each Gulf state survey. The final recommendations are below followed by the methodology used to determine the estimate for each state. Note, no estimate was done for Texas because landings from Texas Parks and Wildlife Department were used in the latest stock assessment.

**Table 1.** The current ACL and recommended revised quota by state.

State	Current ACL	State Data to MRIP CHTS Ratio	Revised Quota
AL	1,122,662	0.4224	474,260
FL	1,913,451	1.0692	2,045,862
LA	816,233	0.7045	575,036
MS	151,550	0.3720	56,378

#### Alabama

Annual red snapper landings in numbers of fish from 2018 through 2019 for Snapper Check and the MRIP FES program were available in private and charter modes. Only private mode estimates were used since the charter estimate from MRIP included federally permitted vessels. The result was an MRIP FES to Snapper Check ratio estimate of 6.06 based on average annual landings. When combined with the MRIP FES to MRIP CHTS estimate of 2.56, the best estimate was to reduce the state quota by almost 58%.

#### Florida

The Florida Gulf Reef Fish Survey (GRFS) developed both observed and simulated ratio estimates comparing GRFS to MRIP FES for red snapper landings in numbers of fish. Both ratios were the same value of 0.36 comparing GRFS to MRIP FES. When combined with the MRIP FES to MRIP CHTS estimate of 2.97, the best estimate was to increase the state quota by almost 7%.

#### Louisiana

S&T provided mean estimates comparing LA Creel to MRIP CHTS effort by wave and mode using data from 2015 through 2017 (Table 2). The majority of red snapper effort in Louisiana typically occurs from June through August when the season has been historically open so an average of the private ratio estimate for waves three (0.690) and four (0.719) was recommended

for use. No comparison between MRIP FES and MRIP CHTS was needed. Using the average ratio of 0.7045, the estimate was to decrease the state quota by almost 30%.

**Table 2.** Survey-specific mean fishing effort (angler trips) and calibration factors for the private (P) fishing mode by wave.

Mode	Wave	$\bar{E}_{LAcreel}$	$\bar{E}_{MRIP}$	$\hat{R}_E$
P	3	425,433	616,502	0.690
P	4	349,345	485,815	0.719

## Mississippi

The Tails n' Scales (TNS) program developed an estimate of 5.86 (standard error 0.87) comparing TNS to MRIP FES using red snapper landings in pounds from 2018 and 2019. When combined with the MRIP FES to MRIP CHTS estimate of 2.18, the best estimate was to decrease the state quota by almost 63%.