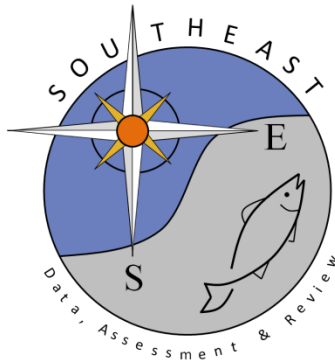


SEDAR 73 South Atlantic Red Snapper Mini-Season Ad-hoc Group Call

Red Snapper Mini-Season Ad-hoc Working Group

SEDAR 73-WP-10

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Red Snapper Mini-Season Ad-hoc Working Group

11-10-2020

Call Date: 9/15/2020

Attendees: Vivian Matter, Matthew Nuttall, Beverly Sauls, Dominique Lazarre, Chris Wilson, Dawn Franco, Eric Hiltz, Amy Dukes, Kayla Rudnay, Tom Sminkey, Kenneth Brennan, Kelly Fitzpatrick, Michael Larkin

The purpose of the Mini-season Ad-hoc conference call was to determine which landings and discards to report for the South Atlantic recreational red snapper mini season in 2018 (Aug 10-12, Aug 17-19) and 2019 (Jul 12-14 and Jul 19-20). The key issue is that MRIP was not designed to target short pulses of fishing, but rather to sample 2-month intervals (waves) for estimation of landings, discards, and effort during those periods. Choices between MRIP and state survey results were made based on decision tree approach used in the 2014 SEDAR 41 data workshop to determine landings and discards for the 2012 and 2013 mini seasons, and subsequently for the 2014 and 2017 mini seasons.

The sources of mini-season data that were reviewed for potential use are as follows:

- Marine Recreational Information Program (MRIP)
- North Carolina Department of Marine Fishers (NCDMF) carcass collection program
- South Carolina Department of Natural Resources (SCDNR) state survey and charter logbook program
- Georgia Department of Natural Resources (GADNR) charter mode telephone survey and private mode carcass collection program (SEDAR73-WP-03)
- Florida Fish and Wildlife Conservation (FWC) Commission state survey (SEDAR 73-RD05 and SEDAR 73- RD07)

Landings: How to characterize the recreational landings during mini-seasons in 2018-2019 for each state, mode, and wave.

Option 1: Use State number if no MRIP number is available, making note of any potential bias

Option 2: Use MRIP number if no State number is available

Option 3: Use the estimate/number (MRIP or State) that is more reliable (taking into account sample sizes, variability, and/or biases associated with the survey) when both MRIP and State numbers were available.

Option 1 decisions. Use State number if no MRIP number is available

- 2018
 - State Charter (CH) – SC (waves 2-6)
 - State Private (PR) – NC (wave 4)
- 2019
 - State Charter (CH) – NC (wave 4), SC (waves 2-6)

Discussion and notes of potential bias/error: The SC charter logbook is reported monthly with potential for recall bias. Information collected includes effort and catch (harvest and discards) and are self-reported without methods to validate the reported landings. The CH and PR landings from NC were based on number of donated carcasses and are therefore not considered to be a random sample or representative of the estimated number of fish landed.

Option 2 decisions. Use MRIP number if no State number is available

- 2018
 - MRIP (CH) – GA (wave 2)
 - MRIP (PR) – FLE (wave 3)
- 2019
 - MRIP (CH) – FLE (wave 1)
 - MRIP (PR) – SC (wave 4)

Discussion and notes of potential bias/error: MRIP estimates for these strata generally have high CVs and low angler trips. For Georgia (2018, wave 2) these landings estimates were informed by intercepts which reported red snapper to the interviewer but were not directly seen (type B1). For East Florida (2018, wave 3 and 2019, wave 1) these landings estimates were informed by intercepts which observed red snapper (type A).

Option 3 decisions. Use the estimate/number (MRIP or State) that is more reliable (taking into account sample sizes, variability, and/or biases associated with the survey) when both MRIP and State numbers were available.

- 2018
 - MRIP (CH) – NC (wave 4), GA (wave 4)
 - State (CH)- FLE (wave 4)
 - MRIP (PR)- GA (wave 4)
 - State (PR) – FLE (wave 4)
- 2019
 - MRIP (CH) – GA (wave 4)
 - State (CH)- FLE (wave 4)
 - MRIP (PR)- GA (wave 4)

- State (PR) – FLE (wave 4)

Discussion and notes of potential bias/error: The FLE state survey only captured activity during the shorter mini season and could likely be an underestimate of recreational landings since there was no accounting for any fishing that may have occurred outside of the season. The NC and GA MRIP estimates generally have high CVs and low angler trips.

Uncertainty concerning landings data sources

There was extensive discussion about which data source to choose when both MRIP and state survey data were available for an individual mode and wave. The merits and deficiencies of each data source were discussed at length for the red snapper mini-seasons in 2018 and 2019. Each state survey was unique and there was little similarity in methods used. North Carolina did not have an alternative survey to MRIP.

For the private mode, NC and GA had a carcass program in place for private boat anglers to donate their red snapper carcasses. A consistent comment concerning voluntary angler reported data was that it was likely to produce an underestimate since not all anglers who caught fish, or attempted a fishing trip without harvest, will participate. The FLE private boat survey utilized a randomized sample design to produce a statistically valid estimate of total effort and catch during the mini-seasons that is more precise, but as stated above is not a representation of any harvest that might have occurred outside the mini-season. The FLE state PR estimates had lower CV values and higher sample sizes than the MRIP estimates. There was concern regarding MRIP estimates generated from concentrated sampling at busy sites during the mini-season and how that was expanded to the whole wave. In the random survey design of MRIP APAIS sampling would be appropriately weighted based on selection probability and angler activity. If sampling were targeted to specific dates, the inclusion probability would be increased and the weighting would be commensurately decreased. In 2018, wave 4, EFL there was not targeted sampling applied to the red snapper mini season dates. If the sites sampled during those dates produced higher than expected numbers of interviews they would be appropriately weighted to produce unbiased catch rates for the mode/wave. And, larger numbers of interviews typically reduce the influence of any single angler-trip catch on those average catch rates. All angler interviews obtained are used to produce the unbiased catch rates used to produce catch estimates by expansion with mode/wave effort estimates.

For the charterboat mode, NC had a voluntary carcass program which was not a random sample or considered representative of the estimated number of fish landed. The GA CH telephone survey was a census of all active CH captains that held federal permits for Snapper/Grouper species, with minimal recall bias because phone calls were made the Monday following the end of the mini-season. These GA charter landings are as reported with no expansion to account for non-reporting. The FLE CH telephone survey attempted to reach all captains that would have targeted red snapper during the mini-season. Data were expanded to account for all captains that were not reached, but did not account for fishing that might have occurred outside of the mini-season. Recall bias was minimal because phone calls were made the week following each weekend opening. The FLE state CH estimates had larger sample sizes and lower CV values than the MRIP estimates.

The red snapper mini season ad-hoc group took all of these points under consideration when deciding which data to use and felt confident in the choices that were made.

Discards: How to characterize the recreational discards during mini-seasons in 2018-2019 for each state, mode, and wave.

Option 1: Use State number if no MRIP number is available, making note of any potential bias

Option 2: Use MRIP number if no state number is available

Option 3: Use the estimate/number (MRIP or state) that is more reliable (taking into account larger sample size or the estimate that encompasses the whole 2 month time period) when both MRIP and State numbers were available.

Option 1 decisions. Use State number if no MRIP number is available, making note of any potential bias

- 2018
 - State Charter (CH) – SC (wave 1, 4-6)
- 2019
 - State Charter (CH) – SC (wave 1-3, 5-6)

Discussion and notes of potential bias/error: The CH discards from SC were self-reported data through the logbook and therefore lacked method of validation and had a high potential for recall bias.

Option 2 decisions. Use MRIP number if no state number is available

- 2018
 - MRIP (CH) – NC (wave 2-5), GA (waves 2, 3, and 5), FLE (waves 1-3, 5)
 - MRIP (PR) – SC (waves 3, 5), GA (wave 3), FLE (waves 1-3, 5, 6)
- 2019
 - MRIP (CH) – NC (wave 3-5), GA (waves 2), FLE (waves 1-3, 5, 6)
 - MRIP (PR) – NC (wave 4), SC (waves 3, 4), GA (wave 2, 3, 5), FLE (waves 1-3, 5, 6)

Discussion and notes of potential bias/error: Some of the estimated discards are based on a fairly low number of angler trips.

Option 3 decisions. Use the estimate/number (MRIP or state) that is more reliable (taking into account larger sample size or the estimate that encompasses the whole 2 month time period) when both MRIP and State numbers were available.

- 2018
 - State (CH) – SC (wave 2-3)
 - MRIP (CH) – GA (wave 4), FLE (wave 4)

- MRIP (PR) – GA (wave 4), FLE (wave 4)
- 2019
 - State (CH) – SC (wave 4)
 - MRIP (CH) – GA (wave 4), FLE (wave 4)
 - MRIP (PR) – GA (wave 4), FLE (wave 4)

Discussion and notes of potential bias/error: The SC logbook program provides a census of all charter captains that would have been targeting Snapper/Grouper species during the mini-season, but it was also noted that these data are self-reported without validation and that there may be some recall bias when logs are submitted monthly. The very high 2018 MRIP private mode estimate of discards for FLE, wave 4 was discussed. The estimate of 1,673,241 fish for that strata came primarily from ocean greater than 3 miles and was informed by 109 angler trips with discarded red snapper. The average number of discarded red snapper per angler trip was three and the maximum was twenty.

Uncertainty concerning discard data sources

In most cases, only one data source was available for each state/mode/wave strata. The main concern of potential bias with state survey and carcass collection information was that data did not encompass the entire wave. MRIP estimates encompassed the entire two month period (i.e. complete wave). SC estimated CH discards from the state survey were preferred due to the larger sample size and also encompassed the entire two month period. FLE and GA estimated discards from the MRIP survey were preferred over the state programs because they encompassed the entire two month period (i.e. complete wave). The red snapper mini season ad-hoc group took all of these points under consideration when deciding which data to use and felt confident in the choices that were made.