

Draft Summary: RED SNAPPER RECREATIONAL CATCH ACCOUNTING METHODS WORKSHOP II

Gulf States Marine Fisheries Commission/Gulf Fisheries Information Network & National Marine
Fisheries Service/Marine Recreational Information Program

Holiday Inn – Chateau Lemoyne, New Orleans, Louisiana

March 27-28, 2014

Thursday march 27, 2014

The meeting commenced with introductions and a brief summary of the consultants' report from the first workshop, providing brief overviews for each of five options for monitoring the red snapper recreational fishery. These options included:

- 1) Expand/improve MRIP or equivalent general angling survey
- 2) Make use of logbooks and/or mandatory reporting combined with on-site validation
- 3) Require permits with contact information to delimit target population, then on-site survey for catch and off-site survey for effort
- 4) Complement MRIP (or equivalent) with longitudinal panel survey for effort
- 5) Use model-based methods that make use of catch data for the easily monitored part of the population (e.g. charter boats), together with an estimated regression model to predict total catch
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The stated goal of the workshop was to have a good understanding of the new methods and pilot programs being implemented in 2014, and hopefully be able to evaluate the performance of these designs in the future. After the introduction, 2014-15 survey designs for all five Gulf states were presented.

Texas obtained funding through MRIP to implement a longitudinal panel study using the smartphone application, iSnapper. For this, a revised version of iSnapper is being developed and will be utilized to focus on a self-selected panel approach for the private recreational angler sector. The panels will be focused at seven ports, with participating anglers required to report catch via iSnapper. Validation of the data will be done by comparing it to the TPWD creel survey, where iSnapper users will enter their boat number for each trip recorded and inform creel agents if they are panel members when surveyed. The main objectives of the project are:

- 1) Develop and implement the iSnapper application (Apple, Android, Windows, and web portal) for private recreational anglers in the Gulf

- 2) Gather data from statistically selected panels of private anglers and validate with TPWD creel survey data
- 3) Collect and assess socioeconomic data from the reef fish fishery participants using iSnapper
- 4) Continue and expand iSnapper as a ready-to-use logbook application for for-hire and EFP fishing vessels.

The timeline for this project is to collect data during the 2014 red snapper season and have a final report in early 2015.

Discussion focused on recruitment and retention of anglers into the panel. All consultants agreed that thorough coverage would be essential to produce accurate estimates with low variances. The survey design for Texas most represents Option 4.

Louisiana provided an overview of the new creel survey to be implemented in the state that utilizes some of the aspects of the 2013 red snapper quota monitoring project, such as the recreational offshore landing permit. The methods for the dockside access-point survey were detailed, including how sites are weighted, what the site assignments and protocols are, and the basic information that will be collected. The effort survey will be a telephone interview with the goal of completing 750 interviews per week for the private angler sector and ten percent of the for-hire sector each week. The consultants questioned why the state planned to use a percentage for the for-hire sector and it was explained that the proportional sample is better suited for this sector because of the variability in numbers throughout the season. The presentation also included several other aspects that Louisiana is working on to improve the survey including validation of self-reported data, determining the public versus private access rate using an incomplete catch card survey, survey shift times, and how to accurately assess discards. The survey design for Louisiana most represents a hybrid of options 1 and 3.

Mississippi presented the proposed red snapper quota monitoring program that requires the owner/captain of a vessel to acquire a no-cost, offshore landing permit, with an associated authorization code, in order to land red snapper in the state. Self-reporting of catch would be required via a smartphone application, online, or by telephone. Validation of the data would occur through dockside interviews, at-sea observations, enforcement reports, aerial surveys, and e-mail contact and phone interviews for authorization codes that have not been reported. At this point, the proposed regulation for requiring an offshore permit has not been approved. The major concerns for this survey method are 1) angler supplied information validity, 2) the limited number of public access sites which support offshore landings, 3) over 50 percent of anglers land at private access sites, and 4) there is a high probability that validation dockside interviews for the landing permit could interfere with MRIP surveying (based on staffing issues). The survey design for Mississippi most represents option 3.

Alabama presented the MRIP funded survey design for developing and implementing a mandatory reporting system for reporting recreational red snapper landings by Alabama private vessels and developing methods for validating self-reported data. Currently, a phone application, printed materials, and vendor sourcing are occurring. A regulation has also been proposed for reporting and will be reviewed in May. Self-reporting will be done either by a phone application, IVR telephone system, web, or on-site drop boxes. The field validation aspect of the proposed method will be similar to MRIP APAIS

draws, however statistical methods are still being developed. The validation data will be used to determine the extent of under or over reporting and may be used to adjust reported data. Data collection is scheduled for June 1-July 10, 2014. The survey design for Alabama most represents option 2.

Florida is proposing a vessel based permit system for private recreational effort, using similar methods to the For-Hire Survey. This new system will be reviewed by the Commission in June and therefore will not be implemented until 2015 if it passes. However, a voluntary participation program may be implemented for 2014 to determine the effectiveness of the proposed method. It was noted that although the proposed rule would be for a vessel-based permit, FFWCC favors an angler-based register. The presentation outlined best and worst case scenarios based on the decision on the proposed rule. In the best case, a mandatory offshore permit would be required, with no exemptions. This would allow for a complete and robust survey frame. The next best case would be having a low level of exemptions and the survey could be implemented to start collecting data on potential undercoverage in 2014, developing correction factors for 2015. However, the worst case scenario is that the permit is only voluntary or not approved at all, and a new design for estimating effort would need to be developed. For a new intercept survey design, funded by NFWF, Florida proposes to collect information that is not already included in MRIP, including detailed trip level data for discards (depths and distance from shore), biological samples from harvest (representative ages), and supplemental CPUE data. One suggestion made was that Florida could increase the regional draw weekly or potentially filter the current frame to identify reef fish/red snapper vessels and produce a supplemental draw just for that universe; however increasing the sampling could overburden for-hire operators. The major issue that Florida faces is the large number of sites dispersed across a large geographic area. The survey design for Florida most represents option 3.

After all states presented, the consultants provided an initial/preliminary reaction to the proposed survey designs. The biggest issue that was discussed is that there eventually needs to be consistency and standardization across all states' survey designs. The following were put forward for group discussion.

- The idea of having a permit process to identify a specific group of anglers is highly valuable for collecting data on a specific species; however, there must be some type of validation/calibration/capture-recapture method to adjust and estimate for non-compliance rates.
- While all states are developing various valid approaches, when trying to manage GoM fisheries, it is very expensive to do so individually. This also creates potential issues for having comparable data across all states.
- Problems that occur at the local level may not be as important at the GoM level. For example, MS has a large proportion of private sites, but if the fishery is similar across states then this problem is most likely lessened.
- It is expensive to assess discards or biological data with large enough sample sizes within a state; pooling data among states could be more cost effective.
- You can achieve higher quality data if there is some consistency of what questions are asked across all states—core set of questions, adding state specific issues when necessary.

Everyone agreed that common standards are needed. However, for the near future (2-3 years), it is more beneficial to pilot multiple approaches and determine what works and what does not, as analyses from different approaches could produce significant findings that might demonstrate a need to implement similar methods in other states. The GoM states can then work towards developing a standardized program. Staying connected is key to all of this because the current assessment is already problematic with missing, incomplete, or uncertain data components.

Friday March 28, 2014

The second day of the meeting commenced with a presentation outlining key aspects of the MRIP Access Point Angler Intercept Survey (APAIS) and effort surveys to account for red snapper for 2014 and 2015. The changes proposed are not specific to red snapper, but are for improving the data overall and could achieve more precise offshore species, such as red snapper, estimates. The discussion touched on many issues regarding red snapper in season quota monitoring and how to best address this.

Possible MRIP changes to improve precision of red snapper catch statistics

For APAIS, potential modifications presented included stratification (spatial and temporal), sample selection probabilities (e.g. site cluster day time intervals), sample allocation, or integration with specialized surveys (e.g. with permit or license list). In 2014, adjustment to the sample allocation could occur by adding or shifting allocation (e.g. boat modes, target open season waves/months, target weekends, target sub-state regions). Also, sample selection probabilities could be moderately adjusted, for example, selection probabilities for in-season versus out of season days for boat mode psu's. For 2015 and beyond, stratification (adding an offshore site group), sample allocation, and sample selection probabilities (offshore pressure categories) were presented as potential adjustments. In addition, integration with specialized surveys, such as the Large Pelagics Survey, would require additional changes but is an option.

The bulk of potential changes would occur for APAIS, but there are some changes to the effort survey that could be made. In 2014, this could include changes to sample allocation, shifting or adding samples to waves with open seasons, which would modestly improve precision of catch estimates as large changes to allocation may not be possible due to contractual obligations. New permit or license lists would also be beneficial to incorporate into stratification or for creating a specialized survey using the new list as a sample frame. For 2015 and beyond, MRIP could also create effort estimates for a specialized offshore domain, improving precision.

Regardless of what changes would be made to APAIS or the effort survey, none would complicate the existing surveys but would likely require coverage adjustments from APAIS. The benefit would be creating effort estimates for a specialized offshore domain, which would provide improved precision for domain effort estimation and improved catch estimates when combined with APAIS offshore catch rates.

Following the presentation, concern was raised about how continuously changing APAIS may affect the estimates. NOAA Fisheries is aware of the concern of consistent changes to the sampling design and its impact on the estimates going forward. However, the proposed modifications will not lead to systematic changes in the point estimates or time series, but rather it would lead to a systematic increase in estimate precision for offshore species. The statistical consultants agreed that the changes are within the same design framework as the current surveys. However, they noted that if using a permit/license

frame for the effort survey it could have an effect, but would still increase precision. Although all Gulf States will be initiating new surveys this year, and some on a pilot basis, it was determined that it is not necessary to delay any changes to the MRIP APAIS and effort surveys until the pilot projects are complete. The continuity of the surveys will still be intact for comparison to the new Gulf surveys.

Another major issue addressed was what can the data collection programs do to produce low PSE's under a scenario where the federal red snapper season was reduced to 10-14 days, potentially not having a usable estimate because the PSE is too high. It was stated that MRIP can address this during the season if an increase in sampling could be allocated during this time. However, this would require a two month lead time in notification to be able to allocate sample appropriately for a short season. The major hurdle for this is staffing capabilities at the state level because APAIS cannot focus all of the sampling to a specific fishery. It was also suggested that if the base survey (APAIS) with modifications can achieve the goals for red snapper and other offshore species then the region should be careful about building too many specialized surveys to accomplish the goals. Lastly, it was noted that when dealing with data collected from several survey designs that are not standardized, it causes a large workload and loss of continuity for stock assessment scientists.

Regarding more timely data for in season monitoring, it was suggested that with available resources, states could implement intensive sampling during the red snapper season similar to what occurs on the east coast of Florida without using MRIP. Electronic data collection would also be beneficial for achieving more timely catch data and preliminary estimates, but only if accepting that there will be error. With this, utilizing a previously year's effort data it may be possible to produce estimates. However, this would also need to be standardized across states.

MRIP is already providing additional funds through the FIN to increase APAIS sampling by twenty percent. A discussion will need to occur about how to allocate the additional sample for important species. Also, in regard to the base survey with each state having its own specific sampling modules, communication and trial needs to happen to ensure that the region is not spending resources building modules that are unnecessary and that all state data collections are comparable. With 2014-15 being a time to experiment with different survey methods, once results are in decisions can be made on how to best incorporate successful methods for assessment and management purposes.

As discussion turned toward how best to track effort and what methods would be best for in-season quota monitoring, it was decided that a separate meeting or call needs to occur with a small sub-section of the group. The main focus of the meeting will be

- How can in-season quota monitoring for red snapper best be accomplished
 - o Should base MRIP survey (APAIS) be used or a specialized survey?
 - o Is it a matter of just estimating effort if most landings are harvesting 2 fish per angler?
 - o What is the best way to process and integrate/coordinate data for assessment?
 - o Is it acceptable to use in-season preliminary estimates versus waiting for final estimates?

Discussion of how new survey designs will be evaluated, certified, and implemented

Once finished with discussing what improvements MRIP can make to the catch and effort surveys, the group moved on to how the new 2014 surveys will be evaluated, and how MRIP certifies methodologies.

Timelines for the projects include one year for the three MRIP funded projects, five years for the Florida survey, and an indefinite timeframe for the Louisiana creel survey. For MRIP projects that need to be

extended for further data collection, an extension of funding is possible. Because the group will continue to exist and meet again in the fall, participants will be able to present one season of data collection for evaluation by the group.

Concern was expressed in having group participants evaluate other states' methodologies, reasoning that NMFS holds this responsibility. However, final determination agreed that the purpose for having the group evaluate results is not for assessing what method to implement, but to evaluate scientific merit and have some level of cohesion amongst states because the red snapper fishery extends beyond state borders. It was suggested that without some level of standardization across states, it could have negative impacts when the time comes to utilize data for stock assessment purposes. For MRIP certification and potential implementation, methodologies will undergo external peer review and evaluation. It was suggested that a small subgroup be developed to create a terms of reference for the evaluation and review of projects within the group, four participants volunteered and the GulfFIN Recreational Technical Group will take lead in drafting an initial document. The focus will be to determine the success of a method for monitoring red snapper, as opposed to evaluation of the statistical validity of a program.

Regional process for certifying methods

MRIP is shifting its focus of how it spends funds from funding pilot studies and methodology improvement projects to supporting the implementation of surveys. Its fundamental role going forward is to develop survey methodologies that work and that have been appropriately tested and reviewed. All certified surveys will go into the MRIP "tool box." Regional implementation teams, consisting of regional partners (state, commissions, FIN's, MRIP staff), will decide which surveys will be used based on available resources and set priorities. Only MRIP certified programs will be eligible for funding.

Process for determining methods for red snapper catch monitoring in 2015

Again, concern was raised for this group evaluating surveys alongside MRIP. However, the purpose of this group is to coordinate efforts and discuss the most effective and cost effective method for the region. It was added that potentially, surveys may have different implications for different aspects of the fishery such as stock structure or timeliness. This group can help the regional implementation teams determine whether a survey fits its needs. Recommended future activities included:

- Meeting later in 2014 to check progress, review preliminary results, talk about 2015, and options for base MRIP surveys in 2015.
- Review for all 2014 surveys will not occur at once. As projects are concluded, reviews, and potential certifications will be produced.
- Building a terms of reference for GulfFIN partners to guide the decision making process in choosing certified data collection tools and ways to obtain funding to meet those partner needs.

In the background is the immediate management needs for more timely data for quota monitoring. All of the above activities may need to be adjusted as those management needs warrant changes.

Upcoming red snapper stock assessment

The group discussed the potential for making adjustments to the base APAIS survey to help make improvements to the 2014 red snapper sampling season. All participants agreed that the proposed adjustments to APAIS should move forward. However, a follow-up discussion must focus on how to optimize the proposed allocation to best improve red snapper estimates.

Next Steps and Conclusion

The workshop concluded with the group agreeing to several next steps and the consultants offering their expertise and help. All states were encouraged to utilize consultant expertise in finalizing their survey designs prior to the 2014 season, as well as for making modifications during.

Next Steps:

1. The group will meet again in Fall 2014 to evaluate and review preliminary results from all five data collection programs
 - Determine a way to standardize questionnaires and datasets
2. States need to think about how and when they would be able to provide data from their programs
3. Follow-up on new discussion topics presented at the workshop
 - Terms of reference for evaluating projects
 - Quota monitoring
 - In-season monitoring
4. Provide a summary of the workshop
5. States will provide consultants with needs for data collection designs, if necessary