

Meeting Summary Report
Gulf of Mexico Fishery Management Council
Ad Hoc Private Recreational Data Collection Panel
February 26, 2013 – Tampa, FL
Tampa, FL

Attendance

AP members

Ken Creel
F.J. Eicke
Bo Gorham
Scott Greene
Megan Robillard
Ed Sapp
Gary Smith
David Sowell
Ray Weldon
Jason Whitaker
Troy Williamson

Council and staff

Harlon Pearce, Council Member
John Froeschke, Council staff
Mark Mueller, Council staff
Karen Hoak, Council staff
Beth Hager, Council staff
Carrie Simmons, Council staff
Steven Atran, Council staff

Others

Rich Malinowski, NMFS
David Buker, NMFS
Dennis O'Hern, FRA
Chad Hanson, Pew
David Buker, NMFS
Bob Gill
Cathy Gill
Gordon Colvin, NMFS
Roy Crabtree, NMFS
Mike Colby, CMA, CFA
Elaine Harrell, SERO

The Ad Hoc Private Recreational Data Collection Advisory Panel met February 26, 2013 at the Gulf of Mexico Fishery Management Council office in Tampa, Florida to discuss private recreational fisheries data collection in Gulf of Mexico. All twelve members of the advisory panel were present. This was the second meeting for the Ad Hoc Private Recreational Data Collection Advisory Panel. The agenda was amended to include discussion of fish tags, an update on the red snapper season length, and discussion of the future of private recreational fisheries management. The amended meeting agenda was accepted. The summary minutes from the May 27, 2012 meeting were adopted as written.

The meeting began with a discussion of the Council Charge and deliverables led by Mr. Sapp and Mr. Pearce (Council representative). The intent of this meeting was continued discussion of opportunities to improve data collection efforts of private recreational anglers whose activities may not be fully captured by existing surveys.

At the May 2012 meeting, satellite based technologies were suggested as one complementary method to improve effort estimates in recreational fisheries. Mr. Mueller gave an overview presentation about using satellite imagery for detection of small vessels, explaining

that while radar and aerial imagery has been successfully used for vessel detection for some time, there is a recent trend in the literature towards using higher resolution optical satellite imagery for the same purpose. As those data become increasingly available, they offer the potential to detect higher numbers of small vessels in a given area at a given time, assuming appropriate imagery is obtained and properly processed. Several international studies have been published demonstrating this capability, although most of those have been relatively small-scale proof of concepts.

Mr. Mueller summarized the technologies involved and the relative capabilities of several specific satellite sensors along with estimates of their relative costs and illustrated that directly purchasing imagery from vendors for very large areas such as for all state waters would quickly become cost prohibitive (on the order of hundreds of thousands of dollars). High-resolution optical imagery costs in the neighborhood of \$10 per square kilometer, but is variable depending on a number of factors such as if the imagery is archived or newly tasked.

Mr. Mueller outlined some of the limitations involved beyond cost constraints. First, there may be a relative scarcity of existing/archived high resolution imagery in offshore areas since there is generally less consumer demand for those areas—most users need terrestrial imagery. Second, poor weather in the form of cloud cover or choppy seas can limit usable areas and potentially introduce bias since fishing effort is often weather dependent. Third, accurate automated detection algorithms require time and expertise to develop and likely cannot distinguish between different types of small vessels (such as for-hire charter boats and private recreational boats). Mr. Mueller suggested possible strategies to address these limitations. Designing appropriate and unbiased sampling routines could allow reasonable inference while minimizing costs. For example, focusing on more limited geographic areas informed by GIS-based habitat analyses, and/or sampling the same small area over time (e.g., an area offshore of Mobile Bay). Additionally, other entities (e.g., NOAA, USGS, National Geospatial Intelligence Agency, universities) may be able to provide previously-acquired imagery and/or existing detection algorithms. Such limitations would have to be addressed in order to answer questions of interest about overall fishing effort. Given that the method has potential, particularly as data availability increases and costs decrease, some AP members expressed support for exploring imagery analysis and other types of innovative data collection approaches in the future.

Dr. Gordon Colvin gave a presentation about angler reporting surveys including survey types (i.e., census and sample), use of survey data, and on-going Marine Recreational Information Program (MRIP) projects. He described a census survey where complete data from all participants results in a total count of measured variables. This requires a complete list of the primary sampling unit and that they are included in the fishery. A census also requires validation and that regulations are enforceable and enforced. Deviations from these assumptions lead to an incomplete census which can be difficult or impossible to expand to estimates of the variable of interest.

Sample-based surveys collect data from a sample of the components of a fishery and expand to estimate the total. The estimate includes both a point estimate and a margin of error. The sample must be representative of the entire population. Assumptions of the survey need to be explicit and tested (untested assumptions introduce potential for bias). In properly designed surveys the variance estimate can be reduced through increased sampling effort. The desired precision is an important consideration of any survey design.

Dr. Colvin also mentioned probability-based panel designs. Although untested, this design would recruit a sample of participants and their fishing activity over time would be recorded and later expanded to estimate catch and effort for the fishery of interest. This approach could help resolve bias and timeliness issues associated with large surveys. Dr. Colvin reviewed the status of the pilot project for electronic charter boat reporting. This final report is in peer-review and is expected to be released in Spring 2013. Results from this survey will inform future decisions regarding data collection on for-hire vessels.

The Advisory Panel discussed the potential use of permits or registries to improve catch or effort estimates. Mr. Pearce described a potential program for red snapper modeled after the highly migratory species permit where anglers would register as red snapper fishermen. This could improve the sample frame of anglers targeting this species and reduce the likelihood of exceeding the allowed harvest for this species. In this potential program, anglers would get a permit the day before to catch their daily bag limit of red snapper the following day. Permits would be unlimited until the quota is caught and there would be no banking of permits. Funding of the program would need further discussion. This would not apply to charter or headboats and concern was raised about initiating a derby fishery. The AP discussed this topic at length and several members indicated a preference for a vessel permit as opposed to an individual angler

permit. Rationale was that a vessel permit was easier, required less paperwork, and would aid in compliance as many anglers fishing off others' vessels may be unaware of such programs. Funding was a concern as any fees collected from a permit would go to the Treasury rather than specifically funding the program because under Magnuson Stevens Act of 2006, funds are only allowed to be collected to cover the cost associated with issuing the permits, with resulting funds sent to the United States Treasury. Mr. Sapp indicated that the Gulf States Marine Fisheries Commission (GSMFC) could administer the program but this would not resolve funding issues. The Panel recommended continued dialogue with GSMFC to further explore this idea. Mr. Sapp stated his concern that the creation of a permit could lead to an ability to limit the number of permits issued at some future date. Mr. Pearce stated that was not his intent, nor desire for any such program. After discussion, the committee passed the following two motions.

Motion: To implement a private recreational boat permit system to improve data collection. The permit would be required for the harvest of any fisheries under the management of the GMFMC. The intent of the permit shall not limit entry of individuals into the fishery.

Motion carried with 2 opposed.

Motion: Require daily permits for the daily bag limit for the private recreational boat owner to be issued for Red Snapper, to be filled out with the necessary information as required by the GMFMC, in order to receive more permits that are unlimited in nature until the quota is caught.

Motion carried 7 to 4.

The AP recognized the need for rationale for the above motions as it is necessary to demonstrate expected benefits of creating additional management programs. A list of expected results are below:

Selling Points for boat permits

- **Real time data**
- **Data from private docks**
- **Data can be species specific**
- **Enable panel surveys**
- **Better define sample frame**

- **Improve discard data**
- **Reduce recall error**
- **The mechanism would be in place for further species-by-species data collection**
- **Electronic and internet based sales points**
- **Create personal angler logs**
- **Data can be used for multiple purposes – creates historical record**
- **Create buy in for the system for every angler – confidence in data**
- **May provide another source of angler contact data for MRIP**

The Advisory Panel also considered other approaches to improve data collection for private recreational fisheries. Given the promising development of electronic data submission platforms (e.g., *iSnapper*, AnglerAction), the AP recommends that the Council develop a pilot program to test feasibility of such programs in the private recreational fishery. As Dr. Colvin stated, voluntary programs are not able to generate unbiased estimates of catch or effort and the AP recommended a panel (or probability) based approach.

Motion: For Council to develop a pilot electronic or web-based program using a panel-based approach for the collection of private recreational data.

Motion carried with no opposition.

The expected benefits of this program are similar to that of the permit based approaches in that timeliness and accuracy of data could be improved with realized benefits to stakeholders.

Ms. Megan Robillard (Harte Research Institute for Gulf of Mexico Studies, Texas A&M-Corpus Christi) provided an update on their electronic data collection program used to collect catch and effort data for for-hire vessels in the Gulf of Mexico (*iSnapper*). *iSnapper* is a smart phone application that functions as an electronic logbook. Ms. Robillard stated that this technology has been used by some for-hire operators since 2011 and participation has increased every year. Results have been informative and some of the resulting data are being incorporated into the on-going red snapper stock assessment. Ms. Robillard closed by stating that this platform could be expanded for use by private recreational anglers if desired.

The advisory panel discussed MRIP communications and outreach. Mr. Gorham indicated that consistency in the distributed message was critical and he expressed confusion about how MRIP harvest (i.e., what is reported on their web-query tool) is incorporated into the

total harvest estimates. Dr. Colvin explained that this is difficult as total harvest incorporates other sources (e.g., headboat landings, Texas landings) and MRIP has plans to develop outreach materials to explain this mechanism (MRIP data user's manual). Mr. Greene suggested that focus groups may help refine MRIP communications. Dr. Colvin indicated that they have been working with focus groups and doing so has been useful and there are plans to integrate their suggestions into future MRIP communications. Mr. Smith noted that data can be difficult to find and that adding a note to appropriate MRIP landings summaries about Texas landings not being included in MRIP would be helpful.

The advisory panel meeting closed with a discussion of the long-term (5-10 yr) vision of the recreational red snapper fishery. The panel stated that predictability of season is critical and stakeholder buy-in requires transparency. Interest was also expressed in granting more flexibility in fishing days and that allocation may need to be re-examined.

The meeting adjourned at 4:00 pm.