

**Summary for the Ad Hoc
Recreational Data Collection Advisory Panel
Tampa, FL
May 17, 2012**

Council and Staff

Kevin Anson
Bob Gill
John Froeschke
Stephen Bortone
Emily Muehlstein
Ava Lasseter

Panel Attendance

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

Attendance-Others

Forbes Darby
Gordon Colvin
Bridgette Froeschke
Shannon McBreen
Chad Hanson
Scott Ward
Dick Brame
Pam Anderson
Melissa Thompson
Beverly Sauls
Todd Phillips
Leah Sharpe
Lauren Anderson

The meeting was convened at 8:30 a.m.

The Ad Hoc Private Recreational Data Collection Advisory Panel met May 17, 2012 at the Gulf of Mexico Fishery Management Council office in Tampa, Florida to discuss private recreational fisheries data collection in Gulf of Mexico fisheries potentially using additional data collection programs that would supplement data currently collected through the Marine Recreational Information Program (MRIP). All twelve members of the advisory panel were present. This was the first meeting for the The Ad Hoc Private Recreational Data Collection Advisory Panel and began with the election of d Hoc Private Recreational Data Collection Advisory Panel (Ed Sapp) and vice-Chair (Scott Greene). The agenda was amended to include discussion of data collection methods other than electronic or tagging programs. The amended meeting agenda was accepted.

The meeting began with a discussion of the Council Charge and deliverables led by Mr. Anson and Mr. Gill (Council representatives). They commented that the charge

for this meeting superseded the charge provided for the AP at the October 2011 Council meeting. Mr. Gill stated that the original charge was not well suited to the skills and expertise of this Panel and the amended charge more closely reflected the input desired from this AP.

Dr. Froeschke gave a brief overview of the stated objectives of this advisory panel meeting. He distinguished between self-reported and self-selected data: Self-reported data: A survey that relies on the individual's own account of experiences (i.e., catch, effort, discard). He also outlined potential problems with accuracy and potential biases during data collection and estimation with these data. Self-selected data occurs when respondents are individuals who volunteer to participate. He stated that data collected from self-selected respondents vary in their susceptibility to bias for self-selected data (Figure 1) as it is typically not a random sample and is affected by known (e.g., angler avidity) and unknown (i.e., variables closely correlated with the decision to participate in a self-selected survey).

Data Type		Bias Potential
1. Length Weight	→	1. Low
2. Age Length	→	2. Low
3. Size distribution	→	3. Medium
4. Catch Rate	→	4. High

Figure 1: A summary of potential data collected by self-selected data programs and the potential for bias.

1. Innovative data collection systems

- Accuracy
- Timeliness
- Stakeholder Confidence

2. Effective method and survey design requires

- Clear statement of objectives
- Adaptive strategy
- Thorough evaluation of strengths and weaknesses of data collection program

MRIP Program: Overview and Update

Dr. Gordon Colvin provided an update on the status on MRIP improvements and implementation. This program replaced the Marine Recreational Fisheries Statistics Survey (MRFSS) addressing design and potential bias problems in the original MRFSS program that estimates recreational fisheries catch and effort. Dr. Colvin stated that significant changes were made in both the catch and effort estimation procedures in effort to improve accuracy and characterize uncertainty of estimates. The original MRFSS estimation procedure did not accurately characterize uncertainty of estimates (i.e., PSE) limiting the usefulness of this metric for fisheries management decisions. He also reviewed the development of the angler registry that will be used to refine the database of anglers for the effort estimates in the MRIP survey. **This transition is ongoing and will be fully implemented in 2013 (check with Forbes).** Mr. Whitaker asked if online surveys were planned or included in MRIP surveys. Dr. Colvin responded that they have considered email based surveys but the sample frame is not yet complete enough for use (i.e., too many anglers not using email which could result in biased survey estimates). Mr. Williamson asked if funding had been increased. Dr. Colvin replied that it had been increased incrementally since inception and that funding was adequate but may be inadequate if future programs are needed to improve accuracy and timeliness of catch and

effort estimates. Mr. Greene asked how states with large number of anglers that likely do not participate in EEZ fisheries affect estimates. Dr. Colvin replied that this does not affect estimates so long as the sample frame is completed as this information can be segregated from these data.

Summary of existing electronic data collection programs -- Didden

Mr. Jason Didden (Mid Atlantic Fishery Management Council staff) gave a presentation about the MRIP volunteer angler data workshop that was held February 2, 2012 at the Mid-Atlantic Fishery Management Council (MAFMC - www.mafmc.org). Mr. Didden stated that the webinar of the workshop was recorded and is available at: <http://www.mafmc.org/events/volunteerdata.htm> and his presentation summarized these findings. Mr. Didden reviewed existing some state electronic data collection programs and discussed potential benefits to accuracy and timeliness of recreational fisheries data estimates as well as potential biases of these data. He mentioned that with opt-in (i.e., voluntary) panels, variables that are closely correlated with the decision to participate have a greater likelihood for bias. Variables that are less closely correlated with the decision to participate in an opt-in panel have a lower likelihood for bias. Like size-age studies, maybe sizes of released fish, site register updating

Four primary findings are the summarized below from the workshop Mr. Didden discussed.

1. Self-reported data has been very important for developing bag/creel and size limit regulations for some states. Predicting the impacts of many bag/creel and size limit regulations requires knowledge of the distribution of lengths of fish caught, including discards. Having enough reported fish lengths facilitates regulatory analysis on critical species such as summer flounder and black sea bass. This is especially true for released fish, as data on released fish is necessary to predict the impacts of any regulation that involves lowering size limits (including slot limits). Self-reported lengths have also been used for allocating striped bass catch between separate resident and migratory fish quotas in the Chesapeake Bay based on fish length.
2. There is a subset of avid anglers who are very keen to provide their data and also very suspect of MRFSS/MRIP data primarily because they (or their friends) were

- not interviewed. The concern is how to use such data since those avid anglers may have very different catch rates from the average angler. Also, there may be a tendency for self-reporters to only report successful trips, which would make catch rates from self-reported data appear even higher than the actual average catch rate and bias any estimates that are made based on self-reported data.
3. Some programs have had substantial drop-offs in participation after the first year or two. Incentives, such as obtaining a bonus fish tag, shirts, or other rewards can help participation. Acknowledging receipt of data, allowing people to see that their data have been recorded, and providing feedback about how the data have been used is equally critical. Stating upfront how data are likely to be used is important to establish accurate expectations. Some have, but quite a few programs have not fully settled into a regular suite of outreach methods that they feel are sufficient to obtain reports from a large and diverse group of anglers that will participate consistently over the long run.

Programs need to make it easy to participate. For example, the Virginia rack collection program provides freezers at certain ports for anglers to donate carcasses for length measurements and age samples. The donation aspect may be a sufficient incentive to anglers as the samples can contribute to stock assessments and other analyses to track the health of fish stocks. The most popular programs have material incentives along with a history of their data getting used in assessments or management.

4. New technology has made a variety of reporting options possible. For example, GPS-equipped smartphones allow apps to be created to upload real-time or near real-time reports with either rough or detailed location information. Satellite uplinks can also facilitate uploading in remote or offshore locations. Real-time uploads can also facilitate assignments of dock-side validation for retained catch, but validation of discarded catch is more difficult, requiring expensive and/or impracticable human observers or possibly video monitoring technology. MRIP is exploring video monitoring technology in other projects.

At the conclusion of the presentation Mr. Smith noted problems of misreporting of self-reported data. Mr. Didden acknowledged that this problem would persist with any self-reported data system. Mr. Ed Sapp offered that any new data collection system would need a validation mechanism built into the process in some way.

Listen into recording at 1030 for Bo Gorham question and Troy Williamson

Following the presentation from Mr. Didden, the AP began discussing objectives of enhance drafting a list of desired features and potential issues when evaluating enhanced data collection options. One suggestion was some type of mandatory reporting by private anglers. However, several AP members noted difficulties in enforcement, reporting mechanisms, and stakeholder support. A second suggestion was to incorporate technology that allowed for anglers to participate in MRIP who are not currently participating in it. Problems were acknowledged with self-selected data streams and the importance of stakeholder buy-in was discussed. These data could benefit anglers by providing additional information about their trip for personal use (private angler log) as well as providing data about released fish and perhaps infrequently caught species that may not be well surveyed by MRIP. The AP also suggested that additional programs would not have to encompass all species included in the MRIP and could instead focus on species under management by GMFMC in federal waters. The AP also considered the ability to provide more timely reporting an important attribute of any new data collection program. Finally, the AP recommended that the MRIP and Council PR incentives to get people to participate through a positive involvement in the process. Find some mechanism to help anglers understand how the data is collected and used to determine estimates in order to build angler confidence.

Shortcomings of MRIP

The AP discussed some of the shortcomings of the MRIP. Mr. Sapp noted that rare species catch rates may be poorly estimated (i.e., mean may be inaccurate or variance estimate too high to yield management advice). Dr. Colvin agreed that there is a clear challenge with rare-event species. Mr. Sapp also stated that the current two-month reporting wave and subsequent lag for processing and effort estimated (~ 45 days) is too long to support in-season management advice for many species (e.g., red snapper). Mr.

Gorham stated that this is concerning to stakeholders as species with short seasons may have to be closed without current information about harvested catch. Dr. Colvin stated that the reporting delay for MRIP could be reduced although this would require additional agency resources.

Advisory Panel members discussed the lack of stakeholder confidence in MRIP and the need to get engagement and support of anglers in any new data collection program. Mr. Whitaker suggested incentives to improve buy-in. Mr. Forbes Darby (NOAA Fisheries) expressed the importance of outreach to explain how data are collected and used and how individual anglers fit in to the program. This will be critical if new data collection programs with enhanced reporting were considered as anglers need to be informed about how these data are used to affect stock assessment and management decisions.

iSnapper

Ms. Megan Robillard (Harte Research Institute for Gulf of Mexico Studies, Texas A&M-Corpus Christi) introduced an electronic data collection program used to collect catch and effort data for for-hire vessels in the Gulf of Mexico (*iSnapper*). Ms. Robillard stated that this technology could be adapted for use by private anglers and could improve timeliness and potentially accuracy due to rapid electronic reporting of fisheries data. The *iSnapper* is a “smart phone” application that functions as an electronic logbook. An on-going pilot program is evaluating the acceptance and efficacy of this technology, and there has been very positive support for this technology from the captains involved in the pilot study. A noted shortcoming of current data collection is the lack of socio-economic data. *iSnapper* is testing the applicability of collecting these data with an “app” from participants in the fishery. The pilot study focused on how the captains and anglers would receive the survey rather than the actual data collected from it. However, preliminary results were promising as some reported trips were also intercepted by Texas Parks and Wildlife surveys and data were largely agreeable across survey types. Ms. Robillard closed by reviewing opportunities and challenges of the programs. The strengths are the adaptability, potential or real-time data collection and reporting, and stakeholder support. Challenges lie in validation, potential bias of catch (e.g., angler

avidity), and reporting requirements and the effect on catch estimates (i.e., voluntary vs. mandatory). At the conclusion of the presentation several questions were posed by AP members. Mr. Sapp asked if reports were time-consuming. Ms. Robillard stated that that reporting was fast and flexible. Mr. Sapp also asked if participants have stayed active in the program and if funding sources have been identified. Ms. Robillard answered that participation and reporting rates had not declined during the pilot program and they are seeking funding sources for possible expansion of the program.

Evaluation of phone and web-based applications.

Following the *iSnapper* presentation the AP discussed the utility of phone and web-based applications to enhance data collection in Gulf of Mexico fisheries. Mr. Gorham stated and the AP agreed that these programs do have merit yet they could not address all challenges related to private recreational fisheries data. Mr. Chad Hanson (audience member) asked what the primary goal was and that careful consideration of the objective would be necessary when evaluating data tools. Mr. Whitaker suggested that Angler Action (<http://angleraction.org/angleraction/login/auth>) could be a useful tool in enhancing data collection capabilities. Ms. Robillard stated that a number of platforms could be used in conjunction to support angler preferences and data collection needs. The Panel also discussed the merits of voluntary vs. mandatory participation by anglers. Mr. Greene spoke in opposition to mandatory collection although others would consider mandatory reporting if clear demonstration of the benefits could be made. In general, mandatory reporting (either in a census or survey design) would lend itself more readily to Gulf-wide catch and effort estimates. Mr. Sapp suggested that a pilot program may be an appropriate mechanism to evaluate these trade-offs.

Offshore Permits

An alternative suggestion to improve data collection was to require a license for offshore fishing to aide in identification of the number of anglers fishing for federally managed species. As the majority of federally managed species are harvested from vessels both individual and boat licenses were discussed. Mr. Sapp asked if this would apply to specific species or all managed species. Mr. Paul Giordano inquired how issues such as angler avidity could be addressed.

Mr. Ray Wheldon introduced a proposal for an offshore fish species permit. This would be patterned after the highly migratory species permit. Mr. Anson stated that considerable challenges would remain regarding validation of such programs. Like other data collection programs the Panel recognized there would be specific strengths and weaknesses of this type of program and would need further discussion to flesh out details.

Tagging

The Gulf Council asked that the Advisory Panel discussed tagging systems for data collection purposes in Gulf Fisheries. Dr. Froeschke stated that there are a number of tagging programs employed nationally and internationally for a variety of purposes and that validity would be affected by specific objectives outlined by the AP and the Council. Mr. Gary Smith outlined a potential program using red snapper as an example. He described a program requiring a tag affixed to landed red snapper focusing on the objectives simplicity and freedom to target fish when desirable to the angler as opposed to strict season limits. The Panel discussed potential problems with determining how many tags would be released, the fair and equitable distribution of these tags and if this would enhance accuracy and timeliness of fisheries data. The Panel generally agreed that a fixed number of tags could help achieve the desired number of harvested fish although it would be difficult to distribute these in a fair and equitable manner. Others spoke in opposition to a fixed number of tags which could compromise the ability to estimate harvest from tags. After considerable discussion Mr. Greene introduced the following

Motion: That no tagging system be considered as part of the Panel's recommendation to the Council. Motion carried 7 to 5.

The Advisory Panel then discussed priorities for data collection programs. The AP suggested 1) Phone/web based application(s), 2) Boat permit for Federal waters. Ms. Robillard stated that there is considerable momentum for their web-based *iSnapper* program and this support would aid the continued development of the program. Regarding boat permits, Mr. Gill said that the Council has considered boat permits previously yet there have been road-blocks preventing their implementation. For example, the agency NMFS has not previously supported this type of programs and

deliverables were not adequate. There was concern that the states would be unwilling to lead/initiate such a program. Mr. Gill urged the AP to develop rationale to overcome these challenges if boat permits were to be considered. Mr. Sapp asked that Council staff develop additional background materials to evaluate utility of a boat permit. Mr. Gill also added that implementation of additional programs may be difficult in a period of declining resources in federal agencies. Mr. Whitaker stated that existing state registration databases could be used to refine the database of anglers engaged in fishing for federally managed species. However, these methods are simply proxies to fishing effort and would require validation and a thorough assessment of the strength of the relationship between boat permits and fishing effort. These challenges would have to be considered prior to implementation but the Panel felt the potential for this system merits further investigation in a subsequent meeting.

Motion: The Panel recommends that the Council allow the Panel to pursue electronic based programs utilizing web and phone-based applications. Program would be used to enhance the Marine Recreational information Program already in place. Motion carried unanimously.

Mr. Gorham states that additional background materials are needed along with further deliberation in an additional Advisory Panel meeting. Dr. Froeschke suggested that satellite imagery could be considered as a mechanism to count boats to estimate fishing effort. Some Advisory Panel members were interested in this possibility and this could be evaluated in a future meeting.

Motion: The panel recommends exploring the options of a boat permit, existing registration information, and satellite imagery processes to narrow the sample frame required to obtain improved fisheries effort information. Motion carried with no opposition.

A second motion was also made regarding this topic.

Motion: The Panel requests that the Council authorize additional meeting time to further explore and make additional recommendations to the council on the subjects

of web-based phone apps, public outreach, boat permits, and other applicable subjects. Motion carried with no opposition

Outreach

The Advisory Panel was charged with providing recommendations to educate the private recreational anglers on the issues relating to data collection, emphasizing MRIP. Mr. Williamson suggested that most anglers remain unfamiliar with MRIP and its objectives. He further noted the challenges of educating the public about this process. He suggested a broad-based approach to reach and educate the public. Mr. Williamson noted that Texas used a variety of platforms to reach out to the public about the protection of seagrass beds.

Motion: The Panel recommends that the Council allow the Panel to further explore education and outreach to recreational anglers to educate them on MRIP. Motion carried with no opposition.

Other Business

The advisory panel adjourned at 12:40 p.m. Eastern Time on May 25, 2011.

Meeting was adjourned at 4:00 p.m.