

Proceedings of the Marine Recreational Information Initiative Operations Team Workshop

**August 7-9, 2007
St. Pete Beach, FL**

The Operations Team of the Marine Recreational Information (MRI) Initiative, in cooperation with the Gulf States Marine Fisheries Commission and the Gulf of Mexico Fishery Management Council, hosted a project planning workshop in St. Beach, FL from August 7-9, 2007. The purpose of the workshop was to provide an opportunity for teams of statisticians, fishery managers, stock assessment scientists, and fishing industry representatives to convene and begin identifying and developing projects that will result in an improved marine recreational fishing data collection program. Over 80 individuals from State and Federal agencies, fishery management councils, interstate fisheries commissions and the fishing public participated in the workshop.

The primary objective of the workshop was to provide an opportunity for each of five working groups to convene and begin the project planning process. Each working group focused on one of five main areas: survey design, data analysis, data management and standards, for-hire fishing, and HMS fishing. Working groups were tasked with developing and prioritizing a list of projects that would result in an improved recreational fishing data collection program, identifying teams to address each of the projects, and outlining draft project plans for the highest priority projects. A list of the highest priority projects, including a summary of each project's objectives, is included below.

Projects plans initiated at the workshop will be further developed over the next six weeks to include specific approaches, timelines, milestones and budgets. These project plans will be submitted to the Operations Team for review and then forwarded to the Executive Steering Committee for final approval. The Operations Team will work with individual working groups to implement the approved projects beginning in January 2008. Priority projects outlined below represent only those projects developed during the workshop. Priorities may be amended and projects added based upon feedback from the working groups, Operations Team and/or Executive Steering Committee.

High Priority Projects

Analysis Working Group

Charge: The National Research Council Review of Recreational Fisheries Survey Methods (NRC Review) noted that the designs, sampling strategies, and collection methods do not provide adequate data for management decisions. Data do not provide the level of resolution required by managers and stock assessment scientists, and catch and effort estimates may be biased because sampling designs are based on unverified assumptions. The following projects aim to test these assumptions, determine appropriate methodological changes that would reduce apparent bias in the estimates, and

assess sample sizes and survey approaches needed to provide the levels of resolution required by managers and scientists.

- *Evaluate whether estimation procedures appropriately match sample designs.* Specific objectives include an evaluation of the impact on bias and precision of intercept and telephone surveys of using nominal and/or actual sample selection probabilities in estimation processes; an evaluation of the effect of multi-stage cluster sampling designs of access-point intercept surveys on bias and precision; an evaluation of the impact of rescheduling site-day interviewing assignments and alternate site and mode interviewing on point and variance estimates.
- *Examine data sources and develop studies to account for anglers not in effort survey frames.* Specific objectives include an evaluation of the impact of fishing by residents of non-coastal households on estimates of fishing effort; an evaluation of the impact of coastal residents without accessible telephones on estimates of fishing effort; an evaluation of the impact of license limitations (exemptions) on estimates of fishing effort where license databases are used as sampling frames.
- *Examine data sources and develop studies to account for angler and vessel trips not included in catch survey frames.* Specific objectives include and evaluation of the impact of excluding private-access fishing, night fishing, tournament fishing and small guide boat fishing from CPUE sampling frames.
- *Examine potential bias associated with measurement error in catch and effort surveys.* Specific objectives include an analysis of bias due to miscommunication due to regional colloquialisms, and an analysis of bias due to non-sampling error.
- *Analyze bias associated with characterization of discarded catch.*
- *Assess sample size / precision relationship.* Specific objectives are to provide levels of precision required by management and to maximize credibility with constituents; provide finer levels of temporal resolution required by management (consider wave 1 sampling and 1-month waves); provide estimates at levels of spatial resolution required by management.

Design Working Group

Charge: According to the NRC Review, both the telephone and in-person interview components of the surveys have flaws in design or implementation that could cause bias (a bias means we're consistently either under- or over-estimating the numbers of fishing participants, the numbers of fishing trips, and/or the numbers of fish caught during a given time period). The following projects examine possible methodological improvements that could eliminate any known causes of bias or greatly reduce the extent of their impacts.

- *Review dual- and/or multiple-frame surveys that use lists of licensed anglers as sample frames (such as those being conducted in the Gulf of Mexico, CA, WA, OR and AK).* Specific objectives are to identify what different approaches to multi-frame sampling are being used in each area; describe how efficiently and effectively each captures the entire population of recreational fishers and their

catch and effort characteristics; provide guidelines for implementing similar systems in other regions.

- *Examine alternate systems (logbooks, on-board cameras, observers) for collecting size and species composition of discarded catch.* Specific objectives include an evaluation of the effectiveness of different systems to collect size, numbers and species composition of released fish in a timely manner; an evaluation of previous studies (MARFIN) that have examined this or similar issues.
- *Evaluate the utility of providing alternate reporting modes for collecting self-reported effort data.* Specific objectives include increasing response rates and an evaluation of the efficiency and effectiveness of different reporting methods.

Data Management and Standards Working Group

Charge: The NRC Review called for a greater degree of coordination between federal, state, and regional survey programs in order to achieve the national perspective that is needed. The following projects address the complex technical issues associated with managing surveys of marine recreational fishing.

- *Review and study existing recreational data collection systems to categorize a set of common data elements that exist in the effort and catch data.* Specific objectives are to document and summarize existing surveys and categorize common data elements that can be readily used to meet management needs.
- *Identify minimum data elements and set regional/national standards for coding systems.* The objective is to document regional and/or national data collection standards.

For Hire Working Group

Charge: The NRC Review made specific recommendations for improving surveys of fishing effort and catch by the for-hire sector, suggesting that reporting requirements should be different from those used for private anglers. The following projects will investigate possible methodological improvements that could enhance the accuracy, timeliness, and accountability of data and statistics obtained for this sector.

- *Analyze reporting methodologies for for-hire fisheries.* Objectives include assessing the pros and cons of various reporting methodologies and benefits and limitations of individual for-hire data collection programs; provide clear recommendations for implementing and/or modifying for-hire data collection methodologies.
- *Inventory and document existing for-hire data collection programs.* Objectives include taking inventory of existing data collection programs in each region; describing data gaps, known biases, units of measure, pros/cons of each methodology, uses of collected data, and timelines of collection and estimation; describing costs for each data program; documenting degree of participation (reporting and compliance) for each program.

HMS Working Group

Charge: Fishery managers have expressed a need to expand data collection programs that specifically target anglers who fish for highly migratory species (HMS). The following projects will explore the expansion of HMS-specific surveys.

- *Explore options and feasibility of designing a program for non-tournament sampling in the Caribbean.* The objective is to develop a plan to collect HMS non-tournament catch and effort data in the Caribbean.
- *HMS angling permit holder telephone survey in FL.* Objectives include estimating total private boat HMS effort in FL; identifying access sites for potential dockside surveys; characterizing spatial and temporal pattern of the recreational HMS fishery in FL.
- *LPS sampling charter boat mode in the Gulf of Mexico (including East Florida).* Objectives include collecting catch and effort data for HMS species in the Gulf of Mexico for charter boat mode; collecting biological data for HMS species in the Gulf of Mexico for charter boat mode.
- *Evaluate LPS tournament data.* The objective is to determine the need and feasibility of stratifying LPS sampling into tournament and non-tournament strata.

Public Comment

A public comment period was provided at the conclusion of the workshop. Tom Siciliano, from the Jersey Coast Anglers Association, commented that he was very happy with the progress and results of the Analysis Working Group. Mr. Siciliano commented that redesigning the data collection program is a daunting task that will require continued sources of funding; Mr. Siciliano (and JCAA) will work with legislatures to secure funding. Mr. Siciliano remarked that this is a unique opportunity to incorporate new technologies such as remote sensing and the internet. Mr. Siciliano requested that efforts be undertaken to address “low hanging fruit”, such as utilizing information collected through the Northeast Vessel Trip (VTR) Reporting Program. Mr. Siciliano mentioned the need for a “reality check”; do the numbers make sense? Such checks will help build credibility.