

# Marine Recreational Information Program Implementation Plan: 2009/2010 Update

January 2010

This report provides an update on progress to date, as well as the blueprint for putting MRIP into action. A dynamic document, the *Implementation Plan* will evolve in response to the latest science and the emerging needs of fisheries managers, regulators, policy makers and stakeholders.

# MRIP Implementation Plan

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## Executive Summary

To enhance the quality of estimates of marine recreational catch in United States waters, NOAA Fisheries is developing the Marine Recreational Information Program (MRIP), an improved system of regional surveys that will replace existing marine recreational fishing data collection programs. It will provide better regional monitoring of recreational fishing participation, catches, landings, and releases of finfish species in marine waters and estuaries for all 50 states and the U.S. territories and Commonwealths.

The Marine Recreational Fisheries Statistics Survey (MRFSS), currently the primary source of recreational fishing statistics, was started in 1979 to collect information about recreational fisheries on a regional scale to meet the management needs of the time. Since then, fisheries management programs have become more complex and demand data at a much finer scale than current programs can provide.

In response to constituents' concerns about the quality of recreational fishing information being used in management, NOAA Fisheries requested an independent review of existing recreational data collection programs by the National Research Council (NRC) of the National Academy of Sciences in 2004. The NRC reported its findings in 2006 and made extensive recommendations for improving data collection and statistical analysis. It also recommended establishing a national registry of saltwater anglers to serve as the basis for future sampling programs. Reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), signed into law in 2007, requires NOAA Fisheries to fulfill the recommendations in the NRC report to the maximum extent practicable and to develop a program to improve the quality and accuracy of recreational survey data by January 2009.

The MRIP brings together federal, state, and interstate partners and constituents who are experts in fisheries management, survey design, statistics, and outreach to improve recreational fishing data collection. Efforts have focused on: 1) conducting research projects that assess current survey methods and address priority needs for survey improvements (Evaluation Phase); 2) implementing the research findings in the field through a series of pilot projects (Innovation Phase); 3) beginning to implement improved survey and analysis methods and to adopt survey standards and best practices (Activation Phase); 4) developing a program for the national angler registry; and 5) communicating to and involving the public in MRIP activities.

A special effort has been made to maintain open, two-way communications with managers, stock assessment scientists, and constituents to ensure that the needs of those who collect, use, and are impacted by the data are understood, documented, and considered as the program advances.

The MRIP will ultimately become a national system of coordinated regional data collection programs designed to address specific needs for recreational fishing information. The design of regional programs will be guided by ongoing and future research projects that will provide recommendations for modifying current survey methods and implementing new methods. These improvements are being incrementally implemented, beginning in 2009, as alternative approaches are designed and tested, and will continue until the new program is fully implemented. The pace of implementation will accelerate through 2010 and beyond, as research projects and pilot efforts are completed. Initial improvements are addressing fundamental issues identified by the NRC review, including establishment of a Federal angler registry, assessing the

potential for bias in current surveys, and developing data collection standards. As these fundamental survey design and management issues are being resolved, focus will shift towards meeting data users' needs for precision and resolution.

The MRIP goal is a nationwide system of surveys operating with consistent standards and sufficient flexibility to meet national, regional, and state needs, and to provide reliable information about recreational fishing in a timely manner to support effective and fair management.

More information and updates can be found at the MRIP website: [www.CountMyFish.noaa.gov](http://www.CountMyFish.noaa.gov).

## Introduction

NOAA Fisheries is entrusted with ensuring the long-term health and use of America's living marine resources. To meet this very direct, yet exceedingly complex charge, NOAA Fisheries must continually promote and evaluate emerging marine science, build consensus and ensure compliance with management decisions, and balance competing needs of stakeholders with respect to such issues as access, conservation, recreation, and commerce.

Major leaps in our understanding of the complexity and interactions of marine ecosystems have occurred in recent years thanks to independent research, as well as scientific study initiated and funded by NOAA Fisheries. Where it was once believed that fisheries could be effectively managed on a stock-by-stock basis, it is now clear that all management decisions must be viewed in the context of the entirety of their impacts.

In addressing and balancing stakeholder needs, NOAA Fisheries must begin with the question, "To whom do America's oceans belong?" The answer, of course, is all of us. So whether it is the New England fisherman whose family's livelihood depends on this season's catch, the recreational angler from the Midwest who enjoys an annual summer deep-water outing, the Pacific Island SCUBA shop owner who outfits tourists, the Alaskan subsistence fisherman who must provide for his family, or the coastal resident who simply appreciates the mystery and the majesty of the sea, everyone's interest must be considered and uses must be balanced against one another. In addition, NOAA Fisheries must respect the rights and decisions of individual states and tribes, and ensure that its actions complement, not conflict with, regional, state, tribal, and local efforts.

Actions taken by NOAA Fisheries must occur against the backdrop of new fishing technologies; demographic trends that have more people moving to the coast; growing interest in the food and energy potential of our oceans; increasing pressure on the resources from non-fishing factors such as climate change; the ever-changing status of the economy; and the recognition of the immense value of our recreational fisheries in terms of both economic impact and cultural heritage.

It is into this context that NOAA Fisheries is implementing the Marine Recreational Information Program (MRIP). Although NOAA Fisheries is responsible for making MRIP work, the program's design relies extensively on input and commitment from partner agencies, organizations, and individuals. NOAA Fisheries believes that this inclusive approach will result in an efficient and effective data collection program that will meet the dynamic demands for recreational fishing statistics.

NOAA Fisheries envisions MRIP as a program that is the most trusted marine data collection system available. One in which people are confident in the integrity of the information they receive, in which stakeholders are engaged, and one that empowers partners in the data collection process. We want to ensure that the profound debates that take place about U.S. ocean policies center on the quality of the management decisions, not the quality of the data.

## 2009/2010 Highlights

### The Framework for Change

MRIP is built on a dual foundation of sound science and public engagement. On the science front, MRIP is informed by the input of dozens of NOAA and independent scientists and other professionals working to address the 200 observations and recommendations made by the NRC in the areas of:

- Effort and Catch Estimation.
- Removal Estimation.
- Data Requirements for Population Assessment.
- Human Dimensions.
- Program Management and Support.
- Communication and Outreach.

In terms of public engagement, NOAA continually meets with data partners, managers, state and local officials, fishermen, members of coastal communities and other interested stakeholders to identify and refine their expectations and data, analysis and outreach needs.

As indicated in the following updates, the MRIP team has made considerable progress on all fronts. For instance, work on implementing the National Saltwater Angler Registry – a vital component in providing more accurate effort estimates – is almost complete, with a launch scheduled for January 1, 2010. In addition, the For-Hire Workgroup is well underway in evaluating the use of logbook reporting and testing the most efficient ways to implement the procedure.

In other areas, progress is equally steady but not as self-evident to those outside the workgroups. The painstaking work of evaluating past surveys, challenging assumptions, testing new methods and ensuring that updated designs deliver on their promise of improvement has consumed thousands of staff and volunteer labor hours and yielded an abundance of valuable insights that are now being tested in the field.

Making this upfront investment in time and intellectual capital is the only way to ensure that MRIP can meet managers' and other stakeholders' needs for data to inform decision and policymaking on issues such as Annual Catch Limits and Accountability Measures. In the interim, NOAA will continue to work with managers, our state partners and other stakeholders to provide the best data currently available to meet statutory requirements.

### National Saltwater Angler Registry

#### In 2009, NOAA Fisheries:

- Adopted the Final Rule to implement the National Saltwater Angler Registry Program. The rule sets forth the requirements and procedure for anglers, spearfishers and for-hire fishing vessels to register with NOAA, and identifies what fishing activities require registration and what parties are not required to register. The rule also includes the provisions whereby states that provide complete angler and for-hire vessel information, or which participate in qualifying regional

surveys of recreational fishing catch and effort, may be designated as exempted states. See Appendix III for details.

- Initiated the process for designating states as exempted states by entering into Memoranda of Agreement under which exempted states will provide data to NOAA Fisheries.
- Assisted states in developing legislation and administrative actions to qualify for exempted state designation under the final rule. Five states (NH, CT, NY, SC, FL) enacted legislation that is expected to qualify the states for exemption. Legislative and administrative actions are under way in five additional states (ME, MA, RI, NJ, PR).
- Completed design of the database that will house the national angler and for-hire vessel registration data.
- Created the registration web site and contracted for toll-free call center services for anglers to register beginning in January, 2010.

#### **In 2010, NOAA Fisheries Will:**

- Register non-exempt anglers and for-hire fishing vessels.
- Build the registry database with information from anglers that register with NOAA Fisheries and with state license/registry data submitted to NOAA.
- Implement dual frame surveys, using both a coastal household and a registry sample frame, in additional states, as state registry data sets are provided to NOAA Fisheries. Continue to develop and refine telephone and mail survey methods thorough dual frame and registry-based pilot projects.

#### **What this will mean to managers, anglers and other stakeholders is:**

- More reliable effort information as a basis for management decision-making.
- A more accurate count of the nation's recreational saltwater fishermen that can be used in determining the impacts of the sector not only on fish stocks, but also on coastal economies, marine stewardship and other important factors.

## For-Hire Survey Review

### In 2009, NOAA Fisheries:

- Documented methodologies for existing for-hire data collections being conducted in the U.S.
- Completed a comprehensive, independent review of ongoing for-hire fishery data collections. The results of the review include recommended best practices applicable to all regions, as well as detailed recommendations for improvement to individual, regional survey programs.

**FOR HIRE REVIEW: Recommended Best Practices for For-Hire Surveys Include:**

- Develop and maintain a complete list of for-hire vessels
- The universal use of logbooks for for-hire vessels.
- For census-based data collections:
  - implementation of methods to validate the self-reported data;
  - complete coverage of all for-hire vessels;
  - at a minimum, weekly reporting of trip-level data;
  - development of an online reporting option.
- Maintenance of complete list of for-hire vessel landing sites
- Ensure that sampling programs utilize probability-based selection of sampling units

- Initiated pilot projects to explore methods recommended by the for-hire survey review, including electronic reporting methods, methods to account for non-response, and a project to design a pilot study that will test the feasibility of logbook reporting in the Gulf of Mexico.

### In 2010, NOAA Fisheries Will:

- Continue to develop and pilot methods for electronic reporting and validation of self-reported data.
- Carry out a pilot project to test the feasibility of electronic trip reporting in the Gulf of Mexico.
- Support the efforts of the regional data collection partnerships to implement survey improvements that address the findings and recommendations of the for-hire review.



**What this will mean to managers, anglers and other stakeholders is:**

- A thorough, field-tested understanding of the cost, timeliness, and practicality of moving to a census-based electronic logbook system.
- Whether a sample- or survey-based data collection method is ultimately chosen, the improved methods will provide a better accounting of the for-hire sector and more complete counts of their customers.

**Evaluation of Whether Estimation Procedures Appropriately Match Sample Designs****In 2009, NOAA Fisheries:**

- Completed a comprehensive inventory of sampling and estimation designs for recreational fishing surveys administered by NOAA Fisheries.
- Conducted a review of sampling and estimation method for the Access Point Intercept Survey component of the Marine Recreational Fishing Statistics Survey (“MRFSS”). Based on that review, developed a revised estimation method, as well as recommendations for changes to intercept sampling design.

**In 2010, NOAA Fisheries Will:**

- Begin to calculate estimates of catch for the Atlantic Coast and Gulf of Mexico utilizing the revised estimation method. Also, recalculate and revise historic estimates of catch for the Atlantic and Gulf coasts based on the revised method.
- Conduct a pilot project to test the recommended changes to intercept survey methods side-by-side with current methods and to evaluate the results.
- Begin to extend the expert review of sample design and estimation to other regional data collection programs.

**What this will mean to managers, anglers and other stakeholders is:**

- Confidence that historical estimates reflect new statistical advancements and are on equal footing with MRIP estimates moving forward.
- A solid statistical foundation on which to make additional survey improvements.

## MRIP Program Strategy

### The “Face of MRIP”: A National Umbrella With Regional Implementation

MRIP will eventually consist of seven regional systems of surveys (see Table 1 below and Appendix II for a description of current regional surveys) adhering to national standards and best practices. In addition to providing each region with the flexibility to address local and/or regional needs, this approach will maximize efficiency by utilizing, to the greatest extent practical, existing infrastructure already developed by existing regional Fishery Information Networks (FINs) and/or state data collection programs. Ultimately, the regional recreational data collection and data use partners will evaluate specific data needs and apply MRIP solutions. They will determine how best to administer and govern regional surveys, resolve currently unresolved issues, determine available funding support levels, and apply funding to regional priorities consistent with MRIP national standards and best practices.

Data collection programs directly managed by NOAA Fisheries will implement improvements as they are identified, documented, and approved by the Executive Steering Committee. For those programs not directly administered and/or funded by NOAA Fisheries, MRIP will provide technical assistance and support for improvements, for example, by enhancing data collection efforts through statistical review and analysis of survey methods, developing information management tools, or providing financial assistance.

#### *National Strategy*

MRIP will develop an overall national “umbrella” of recreational survey design and operational guidance that will apply in all regions. The umbrella will include the following principal characteristics:

- Although there may be some exceptions (e.g. in for-hire fisheries and for infrequently-encountered species), most accounting of recreational catch will be by a sample-based survey and will generate estimates of catch from survey results, rather than by an actual count or census of each recreational fishing trip and each fish caught. The primary focus areas of MRIP are to develop improved sample survey design, estimation methods, and best practices.
- There are different survey methodologies that can provide reliable and useable catch estimates. Regions may decide on the best methods to use, but NOAA Fisheries’ support and participation will require adherence to survey design, estimation, and management standards and best practices as developed via MRIP.
- As recommended by the National Research Council review, surveys of the for-hire fishing mode will be separate from surveys of other fishing modes (shore and boat). For-hire data collection may be either via a census-based or a sample-based survey. If a census-based survey (i.e. trip reporting or logbooks) is chosen, such a survey must be: (1) mandatory and cover all for-hire fishing in the region; (2) enforceable and enforced; (3) verified; (4) affordable; (5) capable of providing verified estimates within the time requirements of regional managers. If a sample-based survey is chosen, survey design and improvements will be undertaken so as to implement recommended survey improvements and standards/best practices as identified by MRIP.

- MRIP will seek to achieve basic standards for survey coverage and basic data elements in all regions to ensure that a basic and complete national picture of marine recreational fishing activity and catch is compiled annually [See Figure XX for a description of national standards adopted in 2009.]
- MRIP is developing enhanced survey design, implementation, and management methodologies, and will adopt standards and best practices as appropriate and feasible, for deployment in the regional surveys. Among the subjects being addressed in this effort are the following:
  - Angler registries for telephone and mail surveys;
  - Optimal ways to design site sampling and estimation of catch for angler intercept surveys;
  - Survey and estimation methods for addressing the effects of undercoverage, particularly for private access and night fishing;
  - Angler panel surveys and other survey methods to improve biological sampling, and to supplement or validate data acquired by primary survey methods;
  - Survey methods to improve estimates of released fish;
  - Survey methods to improve estimates of catch of highly migratory and other infrequently-caught species;
  - Quality assurance and quality control procedures;
  - Survey management methods and communication measures to optimize angler participation and accuracy of reported data.
- MRIP will establish national goals, strategies, and an implementation program for outreach to build stakeholder awareness and support for the program.

**FIGURE 1: NATIONAL STANDARDS FOR SURVEY COVERAGE AND BASIC DATA ELEMENTS**

Coverage Standards: Surveys produce annual estimates by regions and for each state within a region. Regions are as identified in Table 1. States are as defined in 16 U.S.C. 1802. Surveys cover all recreational fishing for marine, estuarine and anadromous finfish (see note below) in all marine waters and estuaries bordering the states.

Required Data Elements: The following estimates are produced not less frequently than annually for each state in a region:

1. Number of recreational fishing days;
2. Number of participating recreational fishers and number of participating for-hire fishing vessels derived from survey estimates or from directories based on license or registration data;
3. Recreational catch and landings in numbers of fish for each species (or, where multi-species groups are managed or assessed as a unit, by such species group), and further specified as:
  - a) By mode of fishing, including at a minimum, shore, private boat and for-hire modes; and
  - b) By area fished, including, at a minimum, EEZ, territorial sea, and internal waters of the state, or other primary jurisdictions applicable to regional management.
5. Unless not utilized in management or stock assessment for the species, mean weights of fish landed for each species (or, where multi-species groups are managed or assessed as a unit, by such species group), and further specified as:
  - a) By mode of fishing, including, at a minimum, shore, private boat and for-hire modes; and
  - b) By area fished, including, at a minimum, EEZ, territorial sea and internal waters of the state, or other primary jurisdictions applicable to regional management.
6. Mean lengths and weights of fish caught and released for each species, wherever direct observations and measurements can be obtained.

Note: While also important, developing methods for monitoring recreational fishing for invertebrates, finfish in freshwater areas, or protected resources interactions are beyond the initial scope of MRIP and these standards.

*Regional Surveys*

Within the national MRIP “umbrella”, regional survey partners will make their own decisions, in consultation with the key fishery management partners (Councils, States, NMFS Regions/Science Centers, NMFS HMS) in the region, as to survey parameters within the region. The principal decisions that regional survey partners will make include:

- Basic survey design choice(s);
- Coverage beyond the standard minimum to accommodate region-specific data needs, including geographic scope and species included;
- Sample design to increase the spatial resolution of estimates below the state level;
- Sample design, frequency and data reporting and analysis processes to deliver estimates more (or less) frequently than the standard;
- Requirement for a census vs. a sample-based survey for the for-hire mode;
- Supplemental surveys required to produce or improve estimates of: infrequently caught species; protected resources; social and economic data;
- Supplemental surveys required to verify and improve confidence in basic survey estimates;
- Biological sampling requirements;
- Regional outreach programs, including measures to build and maintain stakeholder awareness, involvement and support for the data collection program, and confidence in the resulting estimates.

Table 1. Current Regional Surveys and Key Survey Characteristics

Region	Key Characteristics
Atlantic Coast (ME-FL east)	Base Funding: NMFS Supplemental Funding: States & ACCSP Unresolved: Decision-making and role of ACCSP Administration: NMFS + GSMFC (east FL only)
Gulf Coast (FL west-TX)	Base Funding: NMFS + TX Supplemental Funding: States Decision-making: RecFIN SE + TX Administration: GSMFC + TX + NMFS Unresolved: Relationship of TX surveys to RecFIN
Caribbean	Base Funding: NMFS + PR Unresolved: Decision-making + surveys in USVI Administration: GSMFC + NMFS + PR
Pacific Coast (CA, OR, WA)	Base Funding: NMFS + CA, OR, WA Decision-making: Pacific RecFIN Administration: PSMFC + NMFS
Alaska	Base Funding: AK DFG Supplemental Funding: (formerly, not at present) NMFS (via earmark) Decision-making: AK DFG Administration: AK DFG Unresolved: role of NMFS
Hawaii	Base Funding: NMFS + HI Decision-making: HMRFS Administration: NMFS + HI
American Samoa, Guam, CNMI	Base Funding: NMFS + territories/commonwealth Decision-making: WPacFIN Administration: NMFS + AS/GU/CNMI

## MRIP Priorities and Sequence of Implementation

Successfully redesigning the Nation's marine recreational fishery catch and effort monitoring programs requires a well-coordinated, phased approach. In the initial, or Evaluation phase, current survey methods are being fully documented and evaluated. Second is the Innovation phase, in which new survey methods are being developed and tested via pilot projects and the results compared to use of current methods. In the final Activation phase, survey improvements will be implemented. MRIP will establish survey standards and best practices based on the results of the projects in the first two phases. NOAA Fisheries and its partners will implement

improvements in survey design and management and will expand sampling as necessary and possible to achieve improved spatial and temporal resolution of catch estimates in consultation with our regional data collection partners.

The following are the specific priorities that MRIP seeks to address:

MRIP OBJECTIVE	PHASE
Evaluation of current sampling and estimation methods.	<b>EVALUATION</b>
Improved sampling and estimation designs for future surveys. <ul style="list-style-type: none"> <li>▪ Pilot testing of new sampling and estimation methods.</li> <li>▪ Phased implementation of new survey methods.</li> <li>▪ Benchmarking of new survey methods against old survey methods.</li> </ul>	<b>INNOVATION</b>
Meeting customer needs for precision and resolution.	<b>ACTIVATION</b>

NOAA Fisheries and the Regional Survey programs will sequentially implement survey improvements in the Activation Phase as results of Innovation step projects are available, and as NOAA and its partners are able to confidently determine what survey changes should be implemented.

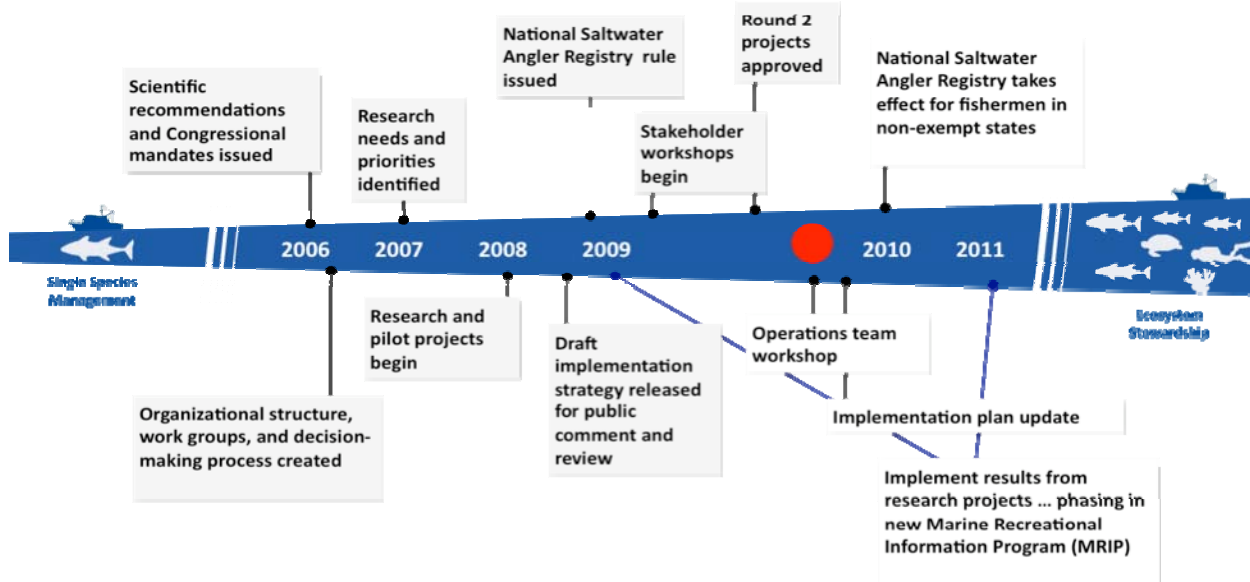
### 2010 MRIP Research Priorities

The MRIP Operations Team conducted a two-day workshop in September, 2009 to review program progress and identify preferred research areas for 2010. The OT identified 16 research areas, which are described in order of preference in Table 2. MRIP Work Groups will be asked to develop projects that address these research areas. Projects initiated in 2010 will continue to concentrate on fundamental program improvements identified by the NRC. Projects addressing the highest priority research areas will be given first consideration for funding.

Table 2. List of preferred MRIP research areas for 2010.

Priority	Project Area	Description/Comment
1	Continue to develop/enhance procedures for sampling anglers from registries or state license databases.	Includes additional testing of alternate modes, assessment of measurement, coverage and non-response error.
2	Develop and implement studies to compare catch rates, catch and fishing characteristics and angler characteristics between accessible and inaccessible fishing sites (private access and night fishing).	Continue to develop and support projects that test for potential biases associated with under-coverage of intercept survey sample frames.
3	Assess sampling and estimation methods for CHTS, FHS, Pacific RecFIN, AK, TX, LPS, participation, etc.	Current efforts have focused on MRFSS access-point intercept survey. Other programs should be assessed. Could include comparisons with methodologies used for National Survey of Fishing, Hunting and Wildlife-Associated Recreational Activities.
4	Develop projects to assess data collection costs to support fisheries management	For example, what level of funding is needed to support in-season quota management, ACL's and AM's.
5	Further develop and implement pilot studies to test alternative methods for collecting discard data.	Discard Project Team identified 3-4 potential pilot studies to test alternative methods for collecting discard data.
6	Implement studies to develop and test "best practice" recommendations from for-hire review.	For example, Gulf of Mexico census logbook, implement improvements to the Southeast Headboat Survey, etc., VTR/FHS integration, non-response follow-up studies.
7	Develop survey methodologies for "rare event" or pulse fisheries.	Generalized recreational fishing surveys may not provide adequate coverage of rare event fisheries such as red snapper in the South Atlantic, HMS, etc.
8	Expand Angler License Directory Surveys (ALDS) / Dual-Frame estimation methodology to additional states/regions.	Begin to utilize Federal Angler Registry once it becomes effective (January 1, 2010). License survey project team is still developing improvements.
9	Expand geographic coverage of recreational fishing surveys.	For example, develop recreational fishing data collection program for the USVI.
10	Develop MRIP information management architecture	
11	Develop data collection methodologies to cover upstream/freshwater portions of anadromous species ranges.	Was requested by ASMFC last year for Atlantic Coast.
12	Develop comparisons between fishing statistics and alternative indicators of fishing effort (e.g. fuel, bait, tackle sales).	A recurring issue in criticism of MRFSS estimates not matching angler opinions about effort and effects of variables such as weather and fuel prices.
13	Increase the geographic resolution of current survey methods.	For example, stratification of FL into 5 areas.
14	Expand temporal coverage of existing recreational fishing surveys.	For example, wave 1 sampling on Atlantic coast.
15	Develop model-based and/or model-assisted estimators for domains that have insufficient sample sizes for direct estimation.	The NRC Review provides several examples and applications. Applications could include sub-state estimates (e.g. Chesapeake Bay), low activity waves, and sub-wave estimates.
16	Increase the temporal resolution of current survey methods.	For example, 1-month waves.

## MRIP Implementation Timeline



## Project Updates

### Design and Analysis Work Group (DAWG)

The NRC noted that both the telephone and in-person interview components of the angler surveys include data collection and analysis procedures that are based on unverified assumptions. These assumptions may lead to biases in catch and effort estimations. The DAWG is charged with addressing assumptions and potential biases in existing data collection programs and, when necessary, developing new data collection methodologies that will produce more accurate estimates of recreational fishing catch and effort. Projects developed by the group are addressing the recommendations from the NRC and will ensure that data collection and analyses meet the demands of fisheries managers, to the greatest extent practicable. The work group is developing a system of surveys that will provide more robust information on angler catch and effort with a workable transition from the existing surveys.

Projects that have been developed and implemented by the DAWG include:

- Development of Survey Methods that Utilize Angler Registries as Sample Frames:**  
 The NRC recommended that future surveys of fishing effort should be based on a universal sampling frame of anglers. The MSA reinforced that recommendation by mandating the, “use of surveys that target anglers registered or licensed at the State or Federal level...” This project, which will evolve as a series of sub-projects, is developing new survey methods that capitalize on the establishment of Federal angler registration requirements while minimizing the potential for error resulting from under-coverage of angler populations, non-response, and misreporting.



Current efforts have focused on integrating registry frames that are incomplete due to licensing exemptions and traditional random-digit-dialing (RDD) frames in a dual-frame telephone survey approach. Ongoing MRIP pilot studies in North Carolina and Louisiana have demonstrated that a dual-frame telephone survey provides considerably greater coverage of anglers than telephone surveys that rely solely on registry or RDD sample frames. Based upon the success of these pilot studies, the methodology will be expanded to Washington in September, 2009 in a study that will also compare resulting effort estimates to estimates derived from a field-based survey of fishing effort.

Future studies will continue to improve upon the dual-frame methodology. A dual-frame mail survey has been approved and will be implemented during the fall of 2009 to test the feasibility of using mail as a data collection mode and assess potential biases in the ongoing telephone surveys. Specifically, the survey, which will sample from an angler registry frame and a comprehensive residential address frame, will assess the coverage, response rates and timeliness of a mail survey approach, as well as begin to quantify reporting errors in existing telephone surveys of fishing effort. The mail survey will be implemented in North Carolina during wave 6 (November/December), 2009.

Pending the results of the dual-frame mail survey, additional projects will be developed to improve angler recall of past fishing activities and measure the impact of non-response on fishing effort estimates. These studies will result in recommendations for designing and implementing surveys that use angler registries as sampling frames.

- **Improving Recreational Fisheries Discard Data:** The NRC suggested that better methods are needed to estimate the number, size distribution and disposition of released fish. Furthermore, the review stated that existing intercept surveys might not provide enough detail to estimate mortality of released or discarded catch. Not knowing the number of released fish or their mortality could impact stock assessments.

The project team has completed an analysis comparing angler-reported and observed discard data from headboat trips on the Atlantic coast. The analysis revealed no systematic difference between observed and angler-reported data, suggesting that headboat anglers are able to accurately recall the number of fish discarded. Future studies will attempt to make similar comparisons for other fishing modes and/or geographic regions. To this end, the project team has generated ideas for several pilot studies and will be submitting project plans for further project development and pilot study implementation during 2010.

- **Evaluation of Sampling and Estimation Designs:** The NRC concluded that estimation procedures for recreational fishing surveys might not be consistent with corresponding sampling designs. Such inconsistencies could result in biased estimates of catch and effort, as well as their corresponding variances.

Due to the large number of recreational fishing surveys, the project team is sequentially assessing the sampling and estimation designs for the regional programs. Initial efforts have focused on the MRFSS Access-Point Angler Intercept Survey (APAIS). The project team has fully documented the sampling and estimation designs for all MRFSS

surveys and has developed a new estimation approach for the APAIS that provides an unbiased estimator of catch rates. The methodology will be validated by an independent panel of experts and implemented during the fall of 2009. Implementation will include estimation of catch rates for future survey waves, as well as a retrospective re-estimation for the period from 2002-present.

The project team has also developed an alternative sampling design for the APAIS that more closely adheres to the principles of probability sampling theory. The multi-stage design, which will be pilot tested in NC beginning in wave 6, 2010, institutes firm guidelines for sample selection (fishing sites, vessels, anglers), establishes new protocols for determining and recording fishing pressures at intercept sites, eliminates sampler flexibility in choosing alternate interview sites or fishing modes, and accounts for fishing that occurs during off-peak hours. Lessons learned from the pilot study will be directly applicable to other states and regions.

Future projects will examine sampling and estimation designs for additional recreational fishing surveys (e.g. Pacific RecFIN surveys, CHTS, FHS, LPS) beginning in 2010.

- **Survey Coverage of Angling Populations:** The NRC review identified gaps in the coverage of CPUE survey sampling frames. Specifically, the review noted the inability of current surveys to sample anglers who fish from private shorelines or those who take boat trips departing from private docks. The review also highlighted the lack of sampling from trips that occur or return to the dock at night. Current sampling and estimation procedures assume that catch and effort characteristics of non-sampled segments of angling populations are similar to those of sampled segments. Catch and effort estimates could be biased if these assumptions are invalid.

The project team provided support to the development and implementation of a panel survey in CA to test the assumption that fishing trips that are not covered by current intercept surveys have similar catch and effort characteristics as trips that are covered by the surveys. Two independent panels of southern California anglers who fish from boats, one representing public-access fishing activities and one representing private-access fishing activities, were recruited from eight sources including known boat anglers from current and past angler telephone surveys and anglers intercepted at fuel docks. Panelists, who are provided with logbooks to facilitate monthly reporting, can report by mail, fax, or by telephone interview. The CA panel survey was implemented November 1, 2008 and will continue through October 31, 2009.

The project team intended to develop additional pilot studies to assess potential errors resulting from under-coverage of intercept survey sample frames during 2009. However, a shortage of human resources has limited the ability of the team to advance other pilot studies. In addition, the team considered utilizing the dual-frame mail survey (described above) as a screener survey to identify a group or panel of anglers from whom to collect catch information. Ultimately, it was determined that the scope of the mail survey should be limited until the methodology proves to be a viable means for collecting fishing information. Based upon the success of the mail survey, the project team will reassess potential offsite methodologies for collecting catch information during the fall and winter

of 2009 with the goal of implementing additional pilot studies during the summer of 2010.

## Data Management and Standards Work Group (DMSWG)

The NRC recommended greater standardization among regional surveys and between state surveys and national surveys. Specifically, the review called for a “greater degree of coordination between federal, state, and other survey programs...to achieve the national perspective on marine recreational fisheries that is needed.” This group is charged with developing and maintaining data collection standards, protocols, and data access portals for the MRIP. The DMSWG is responsible for ensuring the comparability and compatibility of recreational fishing statistics among regional data collection programs while recognizing that each region has unique information needs and data collection issues.

Projects that have been developed and implemented by the DMSWG include:

- **Identify and Consolidate Information on Existing Recreational Datasets:** The initial step toward developing data standards is to identify and summarize existing recreational fishing data collection programs (including for-hire and highly migratory species). This project resulted in a comprehensive inventory of existing state and federal data collection programs, including surveys, logbooks, catch card, tournament, tagging programs and others. Information for sixty data fields were collected, including program definitions; sampling, data collection, and data processing procedures; metadata standards; data management documentation; data elements and definitions; and data access protocols.

To facilitate the documentation of data collection programs, the project team developed the MRIP Data Management and Standards (MDMS) system, a web-based database driven tool in which to store the data. Ultimately, the information compiled within MDMS will be uploaded to InPort, the metadata system developed by the Fisheries Information System (FIS) Program for managing metadata for both commercial and recreational fisheries monitoring programs. The Work Group delivered a report describing the functionality of MDMS, as well as a summary of documented data collection programs, in November 2008.

- **Management and Dissemination of Recreational Fishing Information:** In an effort to enhance data management and data reporting capabilities of recreational fisheries statistics, the project team is supporting the redesign of the Pacific RecFIN website. A contractor has been hired to develop the website, and a Beta version website has been created. The project is scheduled to be completed June 2010.
- **Evaluation of Quality Assurance and Quality Controls in Recreational Fishing Data Collections:** The NRC suggested that, “the sampling process [for recreational fishing data collections] requires greater quality control.” To that end, the DMSWG has developed a project that will include a complete inventory and assessment of current quality control (QC) and quality assurance (QA) processes, from development and maintenance of sample frames, through collection of survey data and calculation of estimates. Initially, the project will focus on documenting all QA/QC processes,

including development of data flow diagrams that clearly illustrate the timing and sequence of existing data quality measures. Concurrent to this documentation, data users and constituent groups will be queried to assess perceived shortcomings in the data collection process. Finally, the documentation and stakeholder feedback will be assessed at a workshop where the project team will develop recommendations for improving QA/QC processes.

The project team has requested feedback from a variety of data users groups, and regional data collection partners have been requested to document QA/QC procedures and develop data flow diagrams. A workshop will be conducted during Winter 2010, and the project team will submit a report documenting recommended enhancements to data quality processes in Summer 2010.

### For-Hire Work Group (FHWG)

The NRC suggested that the for-hire industry be considered a commercial sector and that reporting requirements for this sector should be different from recreational fishing activities. Specifically, it recommended that for-hire operations be required to maintain and submit logbooks documenting fishing effort and catch. There is no existing broad authority to implement the NRC's recommendation for mandatory logbook reporting, but, MRIP is evaluating ways to improve reporting by using all current programs of NOAA Fisheries, the councils, and the states. For example, several regions have implemented for-hire-specific sampling programs that have greatly enhanced data collection in the for-hire sector.

In addition, several states conduct logbook-reporting programs, and NOAA Fisheries administers mandatory logbook reporting for portions of the for-hire fleet in the Northeast and Southeast Regions. In some cases, sampling and logbook programs have been used in dual-frame methodologies to reduce bias and improve precision. The FHWG is charged with addressing data collection issues that are unique to charter, guide, and head boat fishing activities, and ultimately recommending regional approaches for collecting catch and effort data from the for-hire sector.

Projects that have been developed and implemented by the FHWG include:

- **Expert Review of Methods Used to Assess For-Hire Marine Recreational Fisheries of the U.S. (For-Hire Review):** As a follow-up to the general recommendations provided by the NRC, the For-Hire Work Group initiated a detailed, independent review of existing data collection methodologies for the for-hire sector. The three-member review panel, consisting of experts in fisheries management and survey statistics, was asked to provide "best practice" recommendations for collecting catch and effort data from the for-hire sector, and identify improvements that could be made to ongoing sampling and/or census logbook data collections. The full report is available at [www.CountMyFish.noaa.gov](http://www.CountMyFish.noaa.gov)

To facilitate the review, the Work Group compiled detailed documentation of ongoing data collection programs. The comprehensive for-hire data collection inventory was completed and submitted to the OT in August, 2008. The review panel completed its

assessment and provided a final report to the Work Group in March, 2009. Among the “best practice recommendations” are;

1. Development and periodic maintenance of a complete list of for-hire vessels,
2. Universal logbook reporting for for-hire vessels,
3. Development of a complete list of landing sites used by for-hire vessels to be used as a sampling frame for access-point intercept surveys,
4. Probability sampling for dockside intercept surveys of terminating for-hire trips,
5. Development of procedures to account for non-response.

In addition to these best practice recommendations, the report provided specific recommendations to improve existing regional for-hire data collection programs. These recommendations will provide the foundation for future For-Hire Work Group projects.

- **For-Hire Census with Pilot Electronic Reporting Option for Puerto Rico Catch and Effort Data:** Because Puerto Rico does not have a for-hire-specific data collection program, catch and effort estimates for the for-hire sector are derived from traditional MRFSS methodologies: the CHTS collects information about fishing effort and the MRFSS Intercept Survey collects information about catch. This methodology is particularly susceptible to bias in Puerto Rico, where approximately 80 percent of for-hire anglers are non-residents and are consequently not included in CHTS sample frames.

This project included the development and implementation of a pilot electronic logbook reporting program for for-hire vessels in Puerto Rico. The Puerto Rico Department of Natural and Environmental Resources compiled a list of permitted for-hire vessels, and MRIP provided funding to develop a prototype electronic reporting tool. Development of the reporting tool was completed in December, 2008, and the pilot study was implemented in February, 2009. Despite considerable investments in outreach, participation in the pilot study has been minimal. To date, a single for-hire vessel has provided online logbook reports. A project report, describing the functionality of the reporting tool and documenting lessons learned, will be submitted to the OT by October 1, 2009.

- **Development of Improvements to the Southeast Headboat Survey:** The For-Hire Review provides several specific recommendations for improving the Southeast Region Headboat Survey (SRHS), which collects catch and effort information from headboats operating from NC through TX. Included in the report were recommendations to implement probability-based sampling approaches for the dockside intercept survey component of the SRHS and apply all relevant best practice recommendations. The FHWG has developed several projects to address these recommendations, including the following:
  1. **Development of Probability-Based Sampling methods for Southeast Headboat Survey Dockside Intercept Sampling Program:** This project will result in a modified sampling design for the SRHS intercept survey. A pair of survey statisticians have been hired to develop the sampling design, and the

project team conducted a kickoff meeting in June, 2009. The anticipated completion date for the project is spring, 2010.

2. **Implementation of Electronic Logbooks on Headboats Operating in the U.S. South Atlantic:** The For-Hire Review recommended that reporting should be conducted through an online application. This project includes development of an online reporting tool for the SHRS, as well as a pilot study to test the methodology. The project team has completed a statement of work to procure contractor support to develop the reporting tool, and eight vessels have agreed to participate in the pilot study. It is anticipated that data collection for the pilot study will commence November, 2009, and continue for one year.
  3. **Design of Statistically-Based Substitution Routine for Non-Response in a Census-Design Logbook Program - The NMFS SERS:** Development of methods to account for non-response was a best practice recommendation from the For-Hire Review. This project will result in a statistically-based imputation procedure to account for non-response in the SERS. A survey statistician has been hired to design the imputation procedure. It is anticipated that the design will be completed and the methodology implemented during the spring, 2010.
- **Hawaii For-Hire Pilot Study to Incorporate Validation Procedures in the Commercial Marine License Reporting Program:** Currently, the only source for for-hire catch and effort statistics in HI is the Commercial Marine License (CML) reporting program, which is administered by the Hawaii Division of Aquatic Resources (HDAR) and requires captain and crew of for-hire vessels to obtain a license and provide monthly activity reports. An assessment of CML data indicates that the program may suffer from under-coverage, non-response and reporting error. This project includes a detailed assessment of the completeness of the CML vessel frame, as well as the development and implementation of a dockside pilot study to validate information provided through the CML.

The project team conducted a kickoff meeting with Hawaii Division of Aquatic Resources (HDAR) staff who are in charge of the Commercial Marine License (CML) reporting system and with a Council staff who coordinates the MRIP in May 2009. Since the kick-off meeting, HDAR has taken some measures to improve compliance. For example, “did not fish” reports are being compared with dealer reports. In preparation for the dockside pilot study, visits have been made to Maui, Hawaii, and Kauai to identify harbors and identify possible surveyor candidates. A dockside test survey was conducted at two charter harbors in Maui. The survey data will be compared with CML reports. The charter boat database for 2007 and 2008 from CML reports has been compiled and the information gathered has aided with selection of survey sites. It is anticipated that the dockside pilot study will be implemented in late 2009.

- **Cooperative Design of a Logbook Reporting Program for the Gulf of Mexico:** Based on recommendations from the For-Hire Review, this project will develop the requirements and design for a pilot study that will test the feasibility of logbook reporting for for-hire vessels that operate in the Gulf of Mexico. The pilot study must be concurrent with regional requirements for mandatory reporting and adequate

enforcement. The pilot study design will include specifications for electronic reporting, methods for validating self-reported catch and effort data, and methods for adjusting raw logbook data for missing, late, or inaccurate reports. ,

The project team conducted a workshop in August, 2009 to identify data needs, review reporting options, and discuss possible sources of validation data. A summary report from that workshop was completed in September, 2009. It is anticipated that the project team will finalize the design for a pilot study in late 2009.

## Highly Migratory Species Work Group (HMSWG)

Fishing trips targeting highly migratory species (HMS), such as tunas, sharks and billfish, generally make up a relatively small, yet important portion of total recreational fishing activity. Due to the rare occurrence of trips targeting HMS, generalized fishing surveys, such as the MRFSS, do not produce very precise catch estimates for most highly migratory species. The inability of MRFSS to capture HMS fishing activity in a comprehensive manner has resulted in the implementation of specialized HMS data collections such as the Large Pelagics Survey (LPS) and catch card programs for bluefin tunas. While these programs have improved data collection for HMS, they are limited in their geographic scope and may be susceptible to biases described in the NRC's review. The HMS Work Group (HMSWG) is charged with assessing the statistical design and effectiveness of current HMS data collection programs, developing new data collection methodologies as needed, and expanding the scope of HMS data collection efforts to meet management and science needs.

Projects that are being developed and implemented by the HMSWG include:

- **Pilot Study to Characterize Recreational Highly Migratory Species Fisheries in the South Atlantic and Gulf of Mexico:** Specialized data collections designed to capture angler trips targeting HMS are limited to the Northeast Region (LPS) and North Carolina (NC catch card program). Fishery managers and constituents at the Denver Workshop identified insufficient coverage of HMS fishing in the Gulf of Mexico as a data gap. The purpose of this project is to characterize HMS private boat fisheries in the South Atlantic and Gulf of Mexico and the HMS charter boat fishery off of the coast of Texas in terms of magnitude (number of trips and number of participating vessels), species targeted, areas fished, seasonal distribution of fishing effort, fishing access points and departure and return times of trips. Results of this project will be used to quantify the need for HMS-specific data collections in the Southeast Region and, if necessary, help select appropriate methodologies and define the scope of a new HMS-specific data collection program in the region.

A telephone survey to collect information from anglers who participate in HMS fishing in the Southeast Regions was conducted during September, 2008. A final report documenting project results and recommendations will be submitted by the HMS Work Group to the OT on September 11, 2009.

- **Highly Migratory Species Surveys – Florida Pilot Studies:** Recreational fishing for HMS in Florida is a common occurrence. However, current recreational fishing data collection programs do not adequately cover HMS fishing activities. Of particular concern are fishing trips that are not represented in current field surveys, such as trips that return to the docks at night when field samplers are not present, and trips that return to privately owned sites that are inaccessible to samplers.

Two pilot projects have been developed by the HMSWG to address issues associated with HMS fishing in Florida: One focusing on private recreational fishing vessels and one focusing on for-hire vessels. These projects will characterize HMS fishing activity in FL, compare catch rates and catch characteristics between trips that are accessible to field samplers and trips that are generally inaccessible, and provide catch and effort estimates for HMS trips in FL.

Data collection for each of the pilot studies was completed at the end of June, 2009. A final report for the project focused on private boat HMS fishing will be submitted to the OT by September 30, 2009. A final report for the project focused on the for-hire HMS fishery will be submitted to the OT by October 15, 2009.

- **Evaluation of the Sampling Distribution of Tournament versus Non-Tournament Trips in the Large Pelagics Survey:** Tournaments are an important component of the directed fishery for highly migratory species. Due to the competitive nature of HMS tournaments, it is likely that catch rates and fish sizes from tournament trips are different from those of non-tournament trips. As a result, it is extremely important to accurately represent tournament trips in LPS sampling efforts; failure to do so could result in biased catch and landings estimates. This project is evaluating the sampling distribution of tournament trips in NOAA Fisheries' Large Pelagic Survey. If tournaments are not being sampled representatively, recommendations will be made for correcting this potential bias and implementing new approaches for sampling HMS tournaments.

The project team designed and implemented an HMS tournament data collection pilot program that attempted to census catch and effort from organizers of all registered HMS tournaments in the LPS range from Maine through Virginia. In addition, a subsample of these tournaments was selected for dockside surveys with captains. This approach allowed for comparisons of results among different data collection methods (i.e., survey, census organizers, and census captains).

Data were collected from tournament operators during the 2008 fishing season. The project team has completed data analysis and will submit a final report documenting project results by September 30, 2009.

- **Non-Tournament HMS Landings Reporting For Private Boats in Puerto Rico- Phase I: Fishery Characterization and Outreach:** Non-tournament HMS landings in Puerto Rico are unreliable due to the rare-event nature of these fisheries. As a result, fisheries managers and scientists lack the necessary information to guide management actions. The goal of this project is to develop methods that will result in improved marlin landings data that will help NOAA Fisheries monitor the 250-fish limit as recommended



by ICCAT. It is anticipated that this pilot study will lead to improvements in the quality and quantity of information available for future management plans.

A telephone survey designed to characterize the fishing activities of HMS Angling Category permit holders in Puerto Rico was completed June 15, 2009. A final report documenting data collection activities and recommending future data collection methods will be delivered to the OT by September 30, 2009.

- **Evaluation of For-Hire Sector CPUE Estimates as an Index of Abundance for North Pacific Albacore Tuna:** Albacore tuna is a highly sought-after species by for-hire vessels fishing along the U.S. Pacific Coast. Despite their importance, for-hire trips targeting Pacific albacore are not adequately represented by general recreational fishing surveys in WA, OR and CA. As a result, current stock assessments for albacore tuna rely on CPUE indices derived from commercial logbook data, compelling the Pacific Fishery Management Council to identify the development of a CPUE index of abundance for Pacific albacore a top priority recreational data need.

The purpose of this project is to develop a survey design for collecting catch and effort data needed to develop an unbiased CPUE index of abundance for North Pacific albacore. The project team will examine current data collection programs, as well as new data collection approaches. The project team has developed a statement of work to procure statistical consultant support for the project. The team anticipates completing the sampling design during the fall of 2009 with a goal of implementing data collection in 2010.

- **Phased Development and Validation of Survey Design Elements for the West Coast Highly Migratory Shark Species Recreational Fishery:** Five species of migratory sharks are currently managed under the Fishery Management Plan for U.S. West Coast HMS Fisheries. In California, catch and effort of these five species are monitored by the California Recreational Fisheries Surveys (CRFS), a generalized recreational fishing survey that may not adequately cover pulse events such as shark fisheries.

This project will address three areas of uncertainty associated with current catch and effort estimates for migratory sharks; 1) the pulse nature of the fishery, 2) night fishing, and 3) tournament fishing. These issues will be addressed through the development of adaptive sampling approaches that will be designed during the fall of 2009 with a goal of implementing data collection in 2010. The project team has developed a statement of work to procure statistical consultant support for the project.

# Developing the National Saltwater Angler Registry

## Background

The National Saltwater Angler Registry Program (“Registry Program”) implements several of the recommendations of the panel of experts convened by the National Research Council (“NRC”) to review recreational survey design and methods. The NRC found that current recreational surveys that rely on random telephone contacts with residents of coastal county households to collect marine recreational fishing activity data result in significant survey over-coverage because relatively few households include active anglers. The panel also determined that the current sampling methodology results in survey under-coverage because some anglers do not live in coastal counties or they live in coastal counties but do not have landline telephones. The NRC advised that over-coverage results in severe sampling inefficiency and that under-coverage may lead to serious bias in the resultant estimates, since anglers from non-coastal counties are likely to have different fishing habits than those from coastal counties. To resolve these problems, the NRC recommended the development of and subsequent sampling from a comprehensive national saltwater angler registry. The panel further recommended that the registry be established either by implementing a federal registration requirement or by expanding current state saltwater licenses to include all saltwater anglers.

Partially in response to the NRC’s findings and recommendations, Congress passed section 401(g) of the MSA, which requires the Secretary of Commerce to establish a program to improve the quality and accuracy of current estimates of marine recreational fishing catch and effort by January 1, 2009, in a manner that considers and, to the extent feasible, incorporates the NRC’s recommendations. As part of the program, section 401(g)(1) of the MSA requires the Secretary to register, and collect identification and contact information for, anglers and for-hire vessels if they fish in the EEZ, for Continental Shelf fishery resources beyond the EEZ, or for anadromous species throughout their range, including state waters. Further, the Secretary is to exempt from the federal registration requirement those anglers and vessels that are licensed or registered by a state if the state provides sufficient identification and contact information for use in recreational surveys. The resultant federal Registry must address both the qualifications and procedures for registering anglers and vessels and for exempting qualified states’ anglers and vessels from the federal registration requirement.

## Registry Team

A Registry Team of federal and state agencies, regional fishery management and data collection partners, and stakeholders was established to facilitate communications and coordination with states and to assist NOAA in developing the Registry Program.

## Goals of the Registry

Establishing goals for the program requires recognition and balancing of two important provisions of the NRC recommendations and the provisions of §401(g) of the MSA. First, the NRC’s scientific advice is clear that a universal registry or license-based frame of all saltwater anglers, without exceptions resulting from exemptions to state or federal registration requirements, is essential. However, the federal registration provisions of the MSA do not apply to saltwater anglers fishing in state waters (territorial sea or internal waters) unless they are

taking anadromous fish. Accordingly, it will be necessary for states and NOAA Fisheries to work in collaboration to build registries of saltwater anglers that include anglers currently exempted or not covered by state license or registration requirements and that also include anglers who are fishing for non-anadromous marine fish in state waters.

Recognizing the need to balance the NRC recommendations and the MSA requirements, the Registry Team developed the following goals and stated them in the Development Plan for the Registry Program:

- Build, over time, and maintain a directory that identifies and supplies mail and telephone contact information for marine anglers and for-hire vessels in the United States, and that is sufficient in conjunction with supplemental data, to characterize saltwater angling effort as intended by the NRC and by Congress in the MSA.
  - Maximize the use of information collected by states in conjunction with state licenses or registries to populate the directory.
  - Minimize the time and paperwork required for anglers to submit information to the directory.
- Enable states, working through regional partnerships, to collect and submit recreational catch and effort data that conforms to national standards in lieu of submission of angler identification information.
- Achieve a high level of support for, and confidence in, the quality and utility of the data that results from use of the directory from anglers and fisheries professionals.

## Rulemaking

The Executive Steering Committee approved the Registry Team's recommended approach for the registry and state exemption process in September 2007. Based on the approved approach and the foregoing goals, NOAA Fisheries developed a proposed rule and initiated rulemaking to implement the Registry Program. A Notice of Final Rulemaking was published in the Federal Register on December 30, 2008. The scope of the rule includes: the standards and process by which states may apply for exempted state designation based on their provision of license/registry-based sample frames; the standards and process by which states may apply for exempted state designation based on use of state license/registry data to perform surveys of recreational catch and effort; the detailed requirements and process by which anglers and for-hire vessels from non-exempt states will enroll in the federal registry, and requirements for registration fees after January 1, 2011. In response to comments from states, the Final Rule set the date by which anglers, spear fishers and for-hire vessels would need to register with NOAA at January 1, 2010. This delay of one year in the mandatory federal registration was proposed in order to enable states to have one full legislative session in which to enact legislation necessary to qualify for exempted state designation. A summary of the Final Rule is included as Appendix III.

## State Exemptions

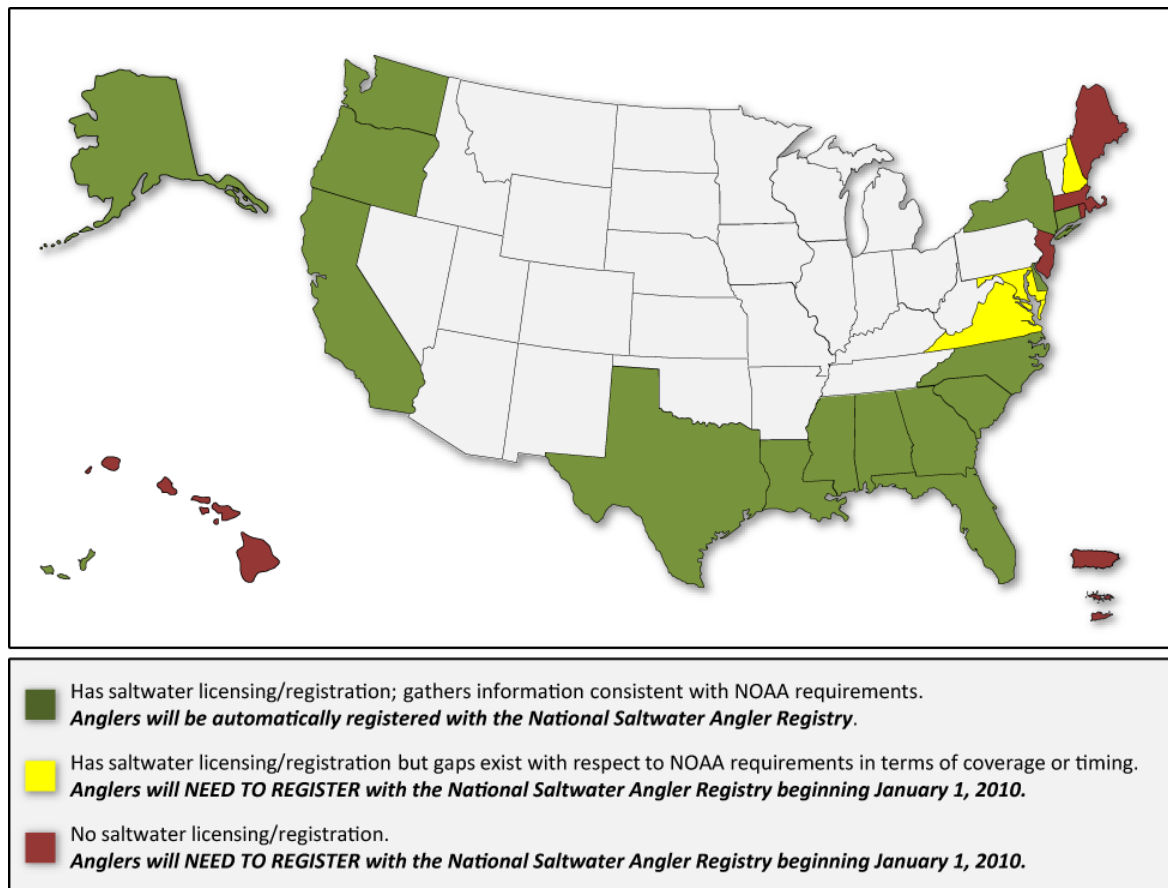
Subsequent to adoption of the Final Rule, NOAA Fisheries has consulted with each state to determine the state's interest in seeking exempted state status, and to determine the specific gaps

between the state's current license/registry frame availability and that required by the rule. NOAA Fisheries continues to work closely with the states to develop states' exemption proposals and to draft Memoranda of Agreement ("MOAs") that will formalize the performance requirements, and the exemption of the state's anglers from the federal registration requirement, for each successful state.

The process of receiving proposals and issuing MOAs for state exemptions will continue until all states that qualify for exempted state designation have completed MOAs with NOAA.

Based on preliminary information provided by states, it is expected that most states will qualify for exempted state designation as of January 1, 2010. See Figure 2 for the status as of October 2009.

Figure 2: Status of State Designations



## Establishing the National Registry of Saltwater Anglers

In 2008, the Registry Team established the Angler Registry Database Work Group ("ARDWG") to assist and advise NOAA Fisheries in the development of the national and regional databases of saltwater anglers, and to make those data available and usable as a sample frame to meet

survey needs. The ARDWG also provided support and advice in the development of the system NOAA Fisheries will implement to enable anglers to register as required by the final rule.

During 2009, NOAA Fisheries has been working with the ARDWG to develop and implement the data management systems, services and processes required to enable the Registry Program to become operational January 1, 2010. These systems, services and processes include:

**Basic Process for Angler Registration:** Anglers will be able to register either through a NOAA website or by calling a toll-free telephone number. Anglers will register by entering their name, address, telephone number and date of birth on the website or by providing that information to the operator, who will enter it. Once anglers have provided the necessary information, they will be issued a temporary registration number, valid for 30 days, which will enable them to fish immediately. Those who register themselves on the website will be able to print out a page with the number. Those who register via the operator-assisted process will need to record the number when provided to them by the operator. All registrants will be mailed a permanent registration card and number, valid for one year from the date of issuance, within two weeks of registration. This will enable NOAA to verify addresses (which we will also use to gather valid telephone numbers via reverse lookup) and provides a durable card that helps with enforcement.

**Angler Registry Database :** The initial database design was completed in January 2009. It was later determined that the database design needed to be modified to accommodate the full For-Hire Survey Vessel Directory, including associated data submission and update processes. Design changes are scheduled to be implemented in August 2009, at which time the database will be operational and ready to store registry data.

**National Registration Interface:** In January 2009, NOAA Fisheries completed the initial development of a custom registration interface to allow anglers to register in the Angler Registry. The national registration interface will need to be updated based on the database design changes scheduled to be implemented in August 2009. Real-time address validation functionality will be incorporated in the registration interface. Interface changes are scheduled to be completed in September 2009. Database, web server, and interface stress testing procedures are scheduled to be run in October 2009. The national registration interface is scheduled to be completed and ready to accept registry data in November 2009.

**National Permits System (NPS) Integration:** The “look and feel” of the custom registration interface mirrors that of the NPS so that it can be used as a bridge and/or backup to the NPS, and any transition between the custom registration interface and the NPS will be as seamless as possible. Once the NPS has gone into production, the ARDWG will work toward migration of the registration interface from the custom program to NPS.

**Call Center, Data Entry, Printing, Mailing, and Returned Mail Processing Services:**

Call center, data entry, printing, mailing and returned mail processing services are being procured through the Government Printing Office (GPO). The GPO contract is scheduled to go out for bid in August 2009 for award in September 2009. A post award meeting with the contractor will be scheduled for September 2009. A trial run of the printing and mailing process will be performed in November 2009. All services will be scheduled to be ready for implementation in January 2010.

**State Import Tool:** In January 2009, NOAA Fisheries completed the initial development of a custom import tool to allow states to upload state license data to the Angler Registry. The state import tool will need to be updated based on the database design changes scheduled to be implemented in August 2009. Changes are scheduled to be completed in September 2009. Database, web server, and interface stress testing procedures are scheduled to be run in October 2009. The state import tool is scheduled to be completed and ready to accept state license data in November 2009. As Memoranda of Agreement (MOAs) are established with the states, the ARDWG will work with states individually to establish and document protocols and schedules associated with state license data submission.

**Quality Assurance, Quality Control (QA/QC) and Data Reconciliation:** ARDWG Project 2 (ARDWG-2) was initiated in June 2009 to address the processes for QA/QC and data reconciliation. QA/QC and data reconciliation processes are scheduled to be identified, documented, and implemented by November 2009.

**Sample Frame Generation, Reporting, and Survey Feedback Interfaces:** Analyses to define the requirements for sample frame generation, reporting, and survey feedback interfaces are scheduled to begin in September 2009.

## Communications and Education Team Update

### NRC Recommendations on Communications

The NRC report noted that a disconnect among scientists, managers, and anglers could be a major impediment to successful program management. Specifically, it found that many anglers do not understand how the current survey works. Further, the NRC report identified outreach and communications as “essential” to addressing the fundamental need for a recreational data program that earns the confidence of anglers and key constituencies in the recreational fishing community.

The NRC report concluded that inadequate communications from program managers directly results in increased angler concerns with the data program. It recommended integrating communications into the data program so that it would become “institutionalized and ongoing.”

That corollary of that observation has been borne out anecdotally over the past year. Our experience, whether through an event like the constituent data review or in focus group settings, the more time that is spent with individual stakeholders on explaining or allowing them to experience the data, the greater will be their confidence that MRIP will help to address their concerns.

### Role of the Communications and Education Team

The role of the Communication and Education Team is to provide expertise that will help foster productive, collaborative relationships with key constituencies who have valuable contributions to offer in the development of the new MRIP. To accomplish this, the Team carries out strategic

communications to ensure partners and constituents are engaged in the redesign process, kept well informed of opportunities to participate, and apprised of the initiative's progress.

## 2009 Activities

In coordination with the Executive Steering Committee, Operations Team, and various work groups, the Communications and Education Team (CET) is working aggressively to implement a diverse array of activities focused on achieving three main objectives. They include:

**1. Improving understanding of how data are collection and analyzed and the new role for MRIP.** The NRC report pointed out a general lack of understanding about data collection methods among partners and stakeholders. The report went on to stress that no new data program would be successful without the understanding, participation, and support from these communities. Numerous meetings with anglers over the past year confirmed this fact. The Communication and Education Team observed that the more familiar anglers were with the data collection processes, the more they recognized the need for MRIP and the incremental improvements being proposed. With this in mind, the CET set about to improve understanding among partners and stakeholders of the current data collection methods, uses, and limitations – then using that foundation as a jumping-off point to introduce MRIP and set reasonable expectations about what the new program will and will not accomplish.

In 2009, the Communication and Education Team undertook a number of activities to achieve this goal of improved understanding among our angling audience. The Team heard from anglers that they get most of their information from face-to-face meetings, the web, and from print publications. So the CET's activities focused on delivering information through these channels. Activities ranged from leading an information session at the annual Constituent Data Review, to penning an article on "counting catch" that appeared in *The Fisherman* magazine, to distributing a general interest piece on data collection to more than a dozen newspapers, and to presenting the MRIP approach at numerous stakeholder meetings from coast-to-coast.

This past year, the Communication and Education Team also developed a new multimedia product designed for the general public. A short, web-based video, entitled "How they do it: Counting Catch", was developed in response to feedback we received at the Constituent Data Review. The video introduces the casual angler to NOAA's data collection methods and MRIP. The CET expects to develop similar short web-based videos on various data-related topics in 2010.

A second target audience identified by the CET is interested and involved partners (including states, council and commission members and staff). As compared to the general fishing public, this audience has a more specific and technical set of information needs. To ensure this audience is kept informed and engaged in the MRIP process, the CET developed a number of products in response to feedback the team received.

The Communication and Education Team produced a second video, this one much longer and more technical than the "Counting Catch" video. This training video targets our interested and involved partners with a more detailed description of MRIP – getting into details such as what MRIP is, why it's important, and how it is being implemented. Like the video for the general

public, this training video will be posted on the MRIP website and available for use by other MRIP partners and stakeholders.

Another product for the more engaged partner is the MRIP elevator speech. During conversations with state partners throughout the year, we consistently heard that they needed a short summary of MRIP to share with staff. This 250 word brief provides a quick and easy transferable description of MRIP and begins to sketch out a face for MRIP.

These efforts, when combined with previous CET products and activities, including the MRIP website, suite of fact sheets, and face-to-face meetings, are helping to improve awareness of our data collection and shape dialogue about the future of MRIP.

**2. Providing information about progress being made to implement MRIP.** Through discussions and interactions with a number of different stakeholders, we know people want to hear what is going on with MRIP, when will it be implemented, how will it be different than the current system, what will MRIP look like when it is fully in place, and what more reliable data will look like. In other words, people want to hear about outcome more than process. They want to know how MRIP can solve their problems, whether it is a Council setting Annual Catch Limits or an angler wanting to feel more confident in the numbers used to regulate fishing.

As results from pilot projects come in, many of these questions will be answered. The challenge is that MRIP may take years to fully implement and so definitive answers may be a ways off. Of course, the outcomes – better spatial resolution, increased accuracy – are intertwined with the process – the development and implementation of pilot projects. The CET is working to better build the case for the process, while working with the ECS, OT, and various work groups to track progress and identify interim outcomes.

*For-Hire – A Model for Communications* - The Communication and Education Team sees the work of the For-Hire Work Group as a programmatic and outreach model for communicating MRIP progress. In 2009, the For-Hire Work Group met an important and much anticipated milestone – the release of the independent scientific review and recommendations for improving the for-hire survey. Setting and meeting this goal presented a valuable opportunity to communicate positive progress and engage the for-hire sector more fully in MRIP.

The Communication and Education Team sought to make for-hire captains fully aware of the report's findings. This was accomplished through a number of means including a Newscast update, fact sheet summarizing the findings, and – based a series of conversations with prominent captains – a mailing to more than 7,000 for-hire operators throughout the U.S. The for-hire captain mailing included a letter highlighting the important findings, a list of regional contacts captains could turn to for specific questions, and a return postcard to request additional information about MRIP. The postcard elicited more than 300 responses and allowed the CET to get back in contact with the operators.

This ability to contact for-hire operators was useful for when the For-Hire Work Group held a workshop with operators on designing a new electronic logbook pilot project. The community was invited to participate in both an in-person and interactive online workshop. This ability to



contact, provide and receive information, and respond to input is helping to improve engagement between MRIP and this important fishing sector.

*Additional Strategies* - The CET has developed a suite of printed materials to help outline MRIP and answer questions. Perhaps none is more useful than the Project Update that was developed in 2009. With multiple pilot projects being undertaken by a multitude of work groups, keeping up with MRIP implementation was a challenge. In response, the team developed the Project Update to make it easier to track progress on MRIP pilot projects. Updated quarterly, the document summarizes each ongoing project, its status, and projected completion date.

Continuing in 2009 is the Newscast e-mail newsletter. The newsletter is sent to a list of over 500 people including NOAA Fisheries, state natural resource agencies, marine fisheries commissions, fishery management councils, and members of the sportfishing community with an interest in the initiative. It highlights breaking news and provides regular updates on MRIP activities.

**3. Raising awareness about the National Saltwater Angler Registry.** Perhaps the most recognized component of MRIP thus far has been the National Saltwater Angler Registry and the requirement that saltwater anglers become part of the registry beginning in January 2010. Early in 2009, the CET engaged in an extensive outreach and media campaign to raise awareness on the release of the final rule - an action that generated dozens of newspaper articles and blog posts.

Subsequently, the CET has been working closely with the Angler Registry Team and individual states to develop an outreach campaign designed to: 1) reduce confusion among anglers when the registry goes into effect in 2010, and 2) promote compliance among anglers in states that will not receive exempted-state status.

The best outreach is based on verifying assumptions through direct interaction and testing with target audiences. In other words, it's important that the messages make sense and the tools to deliver and receive feedback on those messages work effectively. To ensure this all happens - that accurate information is getting into the hands of anglers - the CET conducted stakeholder meetings in two states to ground truth and test materials the team developed to raise awareness about the National Saltwater Angler Registry.

The result is a cooperative marketing kit that is available for states to use - in partnership with NOAA - to get the word out about the registry. The kit includes: web banners, tackle shop brochures, MRFSS sampler handout cards, fact sheets, and a targeted article. All of these materials - designed based on feedback from both angler and state partners - are customizable and easy to reproduce.

As the deadline for registration approaches or as states become exempt, the CET will continue to work cooperatively with interested states to raise awareness of the registry requirement.

## Next Steps

In the coming year, the Communications and Education Team will expand upon these activities to meet our objectives of improving understanding, raising awareness, and increasing engagement. Specifically, there are three areas where the CET sees opportunity.

1. The CET will seek greater integration with the Operations Team. Informing stakeholders about the results of the pilot projects – tracking progress towards full implementation – will continue to be an important aspect of building understanding and support for MRIP. Improving coordination and internal communication about ongoing MRIP activities will enhance the quality and flow of information going to our partners and stakeholders.
2. More than just understanding the process of developing MRIP, our partners and stakeholders need to be informed about what the process is leading to in terms of specifics about spatial resolution, timeliness, and data reliability. The CET has learned that most recognize the uncertainty inherent in the data collection and analysis process, and are willing to accept it if they believe it will get them the information they believe they need. The Team will continue sketch out the “face of MRIP” and respond to our customers’ information needs.
3. Finally, the CET understands that MRIP, and the data it provides, does not exist in a vacuum. It affects people’s lives and livelihoods. The team will continue to engage stakeholders on a regular basis where they live, work, and fish. Getting beyond the confines of NOAA offices has led to – and will continue to result in - improved relationships, higher levels of mutual understanding, and more effective communication products.

## APPENDIX I– Coverage, Resolution, and Timeliness of Current Survey Methods, by Subregion

<b>Alaska</b>	
<b>State/Territory</b>	Alaska
<b>Administrator</b>	Alaska Department of Fish and Game
<b>Survey</b>	Alaska Statewide Harvest Survey
<b>Survey Methodology</b>	List-based mail
<b>Fisheries Covered</b>	Private Boat, charter boat, shore fishing for saltwater finfish species
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	Sub-state
<b>Temporal Resolution</b>	Annual
<b>Timeliness</b>	November of following year
<b>State/Territory</b>	Alaska
<b>Administrator</b>	Alaska Department of Fish and Game
<b>Survey</b>	Alaska Saltwater Logbook Program
<b>Survey Methodology</b>	Census logbook
<b>Fisheries Covered</b>	Charterboat fishing for saltwater finfish species
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	Sub-state
<b>Temporal Resolution</b>	Trip
<b>Timeliness</b>	Spring of following year
<b>Atlantic</b>	
<b>State/Territory</b>	Maine-Georgia
<b>Administrator</b>	NOAA Fisheries Office of Science and Technology ( ST1)
<b>Survey</b>	MRFSS Intercept
<b>Survey Methodology</b>	Access-point intercept
<b>Fisheries Covered</b>	Private boat, charter boat, headboat, shore fishing for saltwater finfish species
<b>Temporal Coverage</b>	March-December (MA-GA); May-October (ME, NH)
<b>Spatial Resolution</b>	State/area fished
<b>Temporal Resolution</b>	Bi-monthly
<b>Timeliness</b>	45 days after wave
<b>State/Territory</b>	Maine-Georgia

<b>Administrator</b>	NOAA Fisheries Office of Science and Technology ( ST1)
<b>Survey</b>	MRFSS Coastal Household Telephone Survey (CHTS)
<b>Survey Methodology</b>	Random-digit-dialing telephone
<b>Fisheries Covered</b>	Private boat, shore fishing for saltwater finfish species
<b>Temporal Coverage</b>	March-December (MA-GA); May-October (ME, NH)
<b>Spatial Resolution</b>	State
<b>Temporal Resolution</b>	Bi-monthly
<b>Timeliness</b>	45 days after wave
<b>State/Territory</b>	Maine-Georgia
<b>Administrator</b>	NOAA Fisheries Office of Science and Technology ( ST1)
<b>Survey</b>	For-Hire Survey
<b>Survey Methodology</b>	List-based telephone
<b>Fisheries Covered</b>	Charter boat, headboat fishing for saltwater finfish species
<b>Temporal Coverage</b>	March-December (MA-GA); May-October (ME, NH)
<b>Spatial Resolution</b>	State/Area fished
<b>Temporal Resolution</b>	Weekly
<b>Timeliness</b>	45 days after wave
<b>State/Territory</b>	Maine-Virginia
<b>Administrator</b>	NOAA Fisheries Northeast Regional Office
<b>Survey</b>	VTR Program
<b>Survey Methodology</b>	Census logbook
<b>Fisheries Covered</b>	Charter boat, headboat fishing for species targeted by Federally permitted vessels
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	Trip location
<b>Temporal Resolution</b>	Trip
<b>Timeliness</b>	Variable – data submitted 15th of month following trip
<b>State/Territory</b>	Maine-Virginia
<b>Administrator</b>	NOAA Fisheries Office of Science and Technology ( ST1)
<b>Survey</b>	Large Pelagic Intercept Survey (LPIS)
<b>Survey Methodology</b>	Access-point intercept
<b>Fisheries Covered</b>	Charter and private boat fishing for HMS
<b>Temporal Coverage</b>	June-October
<b>Spatial Resolution</b>	State
<b>Temporal Resolution</b>	Monthly

<b>Timeliness</b>	30 days after month
<b>State/Territory</b>	Maine-Virginia
<b>Administrator</b>	NOAA Fisheries Office of Science and Technology ( ST1)
<b>Survey</b>	Large Pelagic Telephone Survey (LPTS)
<b>Survey Methodology</b>	List-based telephone
<b>Fisheries Covered</b>	Charter and private boat fishing for HMS with HMS permit
<b>Temporal Coverage</b>	June-October
<b>Spatial Resolution</b>	State
<b>Temporal Resolution</b>	Weekly (charter), bi-weekly (private boats)
<b>Timeliness</b>	30 days after month
<b>Atlantic and Gulf</b>	
<b>State/Territory</b>	North Carolina-Texas
<b>Administrator</b>	NOAA Fisheries Southeast Fisheries Science Center
<b>Survey</b>	Southeast Headboat Survey (SEHB)
<b>Survey Methodology</b>	Census logbook, access-point intercept
<b>Fisheries Covered</b>	Headboat fishing for saltwater finfish species
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	Trip location
<b>Temporal Resolution</b>	Trip
<b>Timeliness</b>	May of following year
<b>Caribbean</b>	
<b>State/Territory</b>	Puerto Rico
<b>Administrator</b>	NOAA Fisheries Office of Science and Technology ( ST1)
<b>Survey</b>	MRFS Intercept
<b>Survey Methodology</b>	Access-point intercept
<b>Fisheries Covered</b>	Private Boat, charter boat, headboat, shore fishing for saltwater finfish species
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	State/Area fished
<b>Temporal Resolution</b>	Bi-monthly
<b>Timeliness</b>	45 days after wave
<b>Gulf</b>	
<b>State/Territory</b>	East Coast of Florida-Louisiana
<b>Administrator</b>	Gulf States Marine Fishery Commission GSMFC (RecFIN)
<b>Survey</b>	MRFS Intercept

<b>Survey Methodology</b>	Access-point intercept
<b>Fisheries Covered</b>	Private Boat, charter boat, shore fishing for saltwater finfish species
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	State/Area fished
<b>Temporal Resolution</b>	Bi-monthly
<b>Timeliness</b>	45 days after wave
<b>State/Territory</b>	East Coast of Florida-Louisiana
<b>Administrator</b>	Gulf States Marine Fishery Commission GSMFC (RecFIN)
<b>Survey</b>	MRFSS Coastal Household Telephone Survey (CHTS)
<b>Survey Methodology</b>	Random-digit-dialing telephone
<b>Fisheries Covered</b>	Private boat, shore fishing for saltwater finfish species
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	State
<b>Temporal Resolution</b>	Bi-monthly
<b>Timeliness</b>	45 days after wave
<b>State/Territory</b>	East Coast of Florida-Louisiana
<b>Administrator</b>	Gulf States Marine Fishery Commission GSMFC (RecFIN)
<b>Survey</b>	For-Hire Survey
<b>Survey Methodology</b>	List-based telephone
<b>Fisheries Covered</b>	Charter boat fishing for saltwater finfish species
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	State/Area fished
<b>Temporal Resolution</b>	Weekly
<b>Timeliness</b>	45 days after wave
<b>State/Territory</b>	Texas
<b>Administrator</b>	Texas Parks and Wildlife Department
<b>Survey</b>	Texas Marine Sport Harvest Monitoring Program
<b>Survey Methodology</b>	Access-point angler intercept, roving boat/trailer counts
<b>Fisheries Covered</b>	Private boat, charter boat fishing for saltwater finfish species
<b>Temporal Coverage</b>	Annual (May 15-May 14)
<b>Spatial Resolution</b>	Bay system or Gulf area
<b>Temporal Resolution</b>	Bi-Annual
<b>Timeliness</b>	Prior year estimates available after 6 months

Pacific	
State/Territory	California
Administrator	CA, PSMFC (Pacific RecFIN)
Survey	CRFS Primary Launch Ramps
Survey Methodology	Access-point intercept, census count of boat trips
Fisheries Covered	Private boat fishing for saltwater finfish species
Temporal Coverage	Annual
Spatial Resolution	Sub-state/Area fished
Temporal Resolution	Monthly
Timeliness	30 days after wave
State/Territory	California
Administrator	CA, PSMFC (Pacific RecFIN)
Survey	CRFS Secondary Launch Ramps
Survey Methodology	Access-point intercept, roving boat counts
Fisheries Covered	Private boat fishing for saltwater finfish species
Temporal Coverage	Annual
Spatial Resolution	Sub-state/Area fished
Temporal Resolution	Monthly
Timeliness	30 days after wave
State/Territory	California
Administrator	CA, PSMFC (Pacific RecFIN)
Survey	CRFS Beaches and Banks
Survey Methodology	Access-point intercept
Fisheries Covered	Shore fishing from beaches or banks for saltwater finfish species
Temporal Coverage	Annual
Spatial Resolution	Sub-state/Area fished
Temporal Resolution	Monthly
Timeliness	30 days after wave
State/Territory	California
Administrator	CA, PSMFC (Pacific RecFIN)
Survey	CRFS Man-Made Structures
Survey Methodology	Access-point intercept
Fisheries Covered	Shore fishing from man-made structures for saltwater finfish species
Temporal Coverage	Annual

<b>Spatial Resolution</b>	Sub-state/Area fished
<b>Temporal Resolution</b>	Monthly
<b>Timeliness</b>	30 days after wave
<b>State/Territory</b>	California
<b>Administrator</b>	CA, PSMFC (Pacific RecFIN)
<b>Survey</b>	California Commercial Passenger Fishing Vessel Survey
<b>Survey Methodology</b>	Access-point intercept/List-based telephone
<b>Fisheries Covered</b>	Charter boat, headboat fishing for saltwater finfish species
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	Sub-state/Area fished
<b>Temporal Resolution</b>	Monthly
<b>Timeliness</b>	30 days after wave
<b>State/Territory</b>	California
<b>Administrator</b>	CA, PSMFC (Pacific RecFIN)
<b>Survey</b>	CRFS Angler License Directory Survey
<b>Survey Methodology</b>	List-based telephone
<b>Fisheries Covered</b>	Private boat and shore fishing (man-made and beach bank) for saltwater finfish species
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	Sub-state/Area fished
<b>Temporal Resolution</b>	Monthly
<b>Timeliness</b>	30 days after wave
<b>State/Territory</b>	Oregon
<b>Administrator</b>	OR, PSMFC (Pacific RecFIN)
<b>Survey</b>	OR Shore and Estuary Boat Survey (SEBS)
<b>Survey Methodology</b>	List-based telephone
<b>Fisheries Covered</b>	Private boat and shore fishing for saltwater finfish species
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	Sub-state/Area fished
<b>Temporal Resolution</b>	Bi-monthly
<b>Timeliness</b>	30 days after wave
<b>State/Territory</b>	Oregon
<b>Administrator</b>	OR, PSMFC (Pacific RecFIN)
<b>Survey</b>	OR Shore and Estuary Boat Survey (SEBS)
<b>Survey Methodology</b>	Access-point intercept



<b>Fisheries Covered</b>	Shore fishing for saltwater species or boat fishing for saltwater species in inland waters
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	Sub-state/Area fished
<b>Temporal Resolution</b>	Bi-monthly
<b>Timeliness</b>	30 days after wave
<b>State/Territory</b>	Oregon
<b>Administrator</b>	OR, PSMFC (Pacific RecFIN)
<b>Survey</b>	OR Boat Survey (ORBS)
<b>Survey Methodology</b>	Exit counts/Access-point intercept
<b>Fisheries Covered</b>	Private and charter boat fishing for saltwater finfish species in ocean waters
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	Port/Area fished
<b>Temporal Resolution</b>	Weekly
<b>Timeliness</b>	30 days after wave
<b>State/Territory</b>	Washington
<b>Administrator</b>	WA, PSMFC (Pacific RecFIN)
<b>Survey</b>	WA Angler License Survey (ALS)
<b>Survey Methodology</b>	List-based telephone
<b>Fisheries Covered</b>	Private boat, charter boat and shore fishing for saltwater finfish species
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	Area fished
<b>Temporal Resolution</b>	Bi-monthly
<b>Timeliness</b>	30 days after wave
<b>State/Territory</b>	Washington
<b>Administrator</b>	WA, PSMFC (Pacific RecFIN)
<b>Survey</b>	WA Puget Sound Boat Survey
<b>Survey Methodology</b>	Access-point intercept
<b>Fisheries Covered</b>	Private boats fishing in Puget Sound
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	Area fished
<b>Temporal Resolution</b>	Bi-monthly
<b>Timeliness</b>	30 days after wave
<b>State/Territory</b>	Washington
<b>Administrator</b>	WA, PSMFC (Pacific RecFIN)

<b>Survey</b>	WA Ocean Sampling Program (OSP)
<b>Survey Methodology</b>	Access-point intercept
<b>Fisheries Covered</b>	Private and charter boats leaving from coastal ports
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	Area fished
<b>Temporal Resolution</b>	Bi-monthly
<b>Timeliness</b>	30 days after wave
<b>Western Pacific</b>	
<b>State/Territory</b>	Hawaii
<b>Administrator</b>	NOAA Fisheries Office of Science and Technology ( ST1)
<b>Survey</b>	Hawaii Marine Recreational Fishing Survey (HMRFS)
<b>Survey Methodology</b>	Access-point intercept
<b>Fisheries Covered</b>	Private boat, shore fishing for saltwater finfish species
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	State/Area fished
<b>Temporal Resolution</b>	Bi-monthly
<b>Timeliness</b>	45 days after wave
<b>State/Territory</b>	Hawaii
<b>Administrator</b>	NOAA Fisheries Office of Science and Technology ( ST1)
<b>Survey</b>	MRFSS Coastal Household Telephone Survey (CHTS)
<b>Survey Methodology</b>	Random-digit-dialing telephone
<b>Fisheries Covered</b>	Private boat, charter boat, headboat, shore fishing for saltwater finfish species
<b>Temporal Coverage</b>	Annual
<b>Spatial Resolution</b>	State
<b>Temporal Resolution</b>	Bi-monthly
<b>Timeliness</b>	45 days after wave
<b>State/Territory</b>	Hawaii
<b>Administrator</b>	State of Hawaii Division of Aquatic Resources
<b>Survey</b>	State of Hawaii Commercial Marine License Logbook
<b>Survey Methodology</b>	Fishers reporting
<b>Fisheries Covered</b>	Commercial (trolling, bottomfishing, for-hire and others)
<b>Temporal Coverage</b>	Daily fishing log by fishing area
<b>Spatial Resolution</b>	Established state's statistical fishing areas (for State and Federal waters)
<b>Temporal Resolution</b>	Monthly

<b>Timeliness</b>	Quarterly per cooperative agreement
<b>State/Territory</b>	Guam
<b>Administrator</b>	Division of Aquatic and Wildlife Resources
<b>Survey</b>	Boat-based and shore-based
<b>Survey Methodology</b>	Systematic random sampling surveys using combination of roving creel, bus-route and access point
<b>Fisheries Covered</b>	Commercial, non-commercial and for-hire
<b>Temporal Coverage</b>	Systematic random selection of day, night, weekday and weekend/holiday
<b>Spatial Resolution</b>	Boat-based: Guam's three most actively used ports/Shorebased: Non-military and accessible shoreline areas
<b>Temporal Resolution</b>	Quarterly data expansion is possible; however, annual expansion is mostly used
<b>Timeliness</b>	Quarterly per cooperative agreement
<b>State/Territory</b>	Commonwealth of the Northern Mariana Islands
<b>Administrator</b>	Division of Fish and Wildlife
<b>Survey</b>	Boat-based and shore-based
<b>Survey Methodology</b>	Systematic random sampling surveys using combination of roving creel, bus-route and access point
<b>Fisheries Covered</b>	Commercial, non-commercial, and for-hire
<b>Temporal Coverage</b>	Systematic random selection of day, night, weekday, and weekend/holiday
<b>Spatial Resolution</b>	Boat-based: Three most actively used ports on the western side of Saipan Island/Shorebased: Accessible shoreline areas in the western lagoon of Saipan Island
<b>Temporal Resolution</b>	Quarterly data expansion is possible; however, annual expansion is mostly used
<b>Timeliness</b>	Quarterly per cooperative agreement
<b>State/Territory</b>	American Samoa
<b>Administrator</b>	Department of Marine and Wildlife Resources
<b>Survey</b>	Boat-based and shore-based
<b>Survey Methodology</b>	Systematic random sampling surveys using combination of roving creel, bus-route and access point
<b>Fisheries Covered</b>	Commercial and non-commercial; new emerging for-hire fishery can be added if resources are available
<b>Temporal Coverage</b>	Systematic random selection of day, night, weekday and weekend/holiday
<b>Spatial Resolution</b>	Boat-based: Four most actively used ports on Tutu'ila Island/Shorebased: Accessible shoreline areas along the southern coast of Tutu'ila and Aunu'u Islands
<b>Temporal Resolution</b>	Quarterly data expansion is possible; however, annual expansion is mostly used
<b>Timeliness</b>	Quarterly per cooperative agreement

## APPENDIX II– MRIP Background

### Existing Recreational Fishing Data Collection Programs

Marine recreational fishing statistics have traditionally been collected through a combination of telephone and fishing access-point intercept surveys. Generally, these surveys are funded by NOAA Fisheries and conducted in cooperation with, and with supplemental funding from, interstate commissions and state natural resource agencies.

The Marine Recreational Fisheries Statistics Survey (MRFSS), initiated in 1979 as a requirement of the Magnuson Fishery Management and Conservation Act of 1976, continues to be the primary source for national recreational fishery statistics in the United States. It is currently conducted in all regions except Alaska, Texas, the Western Pacific Territories, and the U.S. Virgin Islands.

The MRFSS is based on a complementary survey design that includes a telephone survey to estimate effort and a shoreside survey to estimate catch per trip. Data from the two independent surveys are combined to estimate total fishing effort, participation, and catch by species. To demonstrate the concept: if we know a group of people took about 1000 trips and caught about 2 flounder per trip, then we can estimate they caught 2000 flounder in total. The telephone survey gives us information on trips and the shoreside survey gives us information on catch per trip. Scale this concept up to the whole coast and for all different species and you basically understand how the survey works.

The MRFSS design was originally developed to monitor all modes of marine recreational fishing (shore, private boat, charter boat, and headboat), but a new For-Hire Survey (FHS) design was later developed to provide more precise statistics on catch and effort for the charter and headboat modes. The FHS utilizes a complementary survey design that includes an access point intercept survey but differs from the MRFSS by using a vessel directory telephone survey to collect fishing effort data through random sampling of listed vessel operators. The FHS approach also includes an at-sea sampling survey of headboat fishing trips that collects direct observations and measurements of both retained and released catches. The FHS approach was implemented in the Gulf of Mexico (1998), California (2001), and the Atlantic states (2003) through the cooperative efforts of NOAA Fisheries, the interstate commissions, state agencies, and the fishing industry.

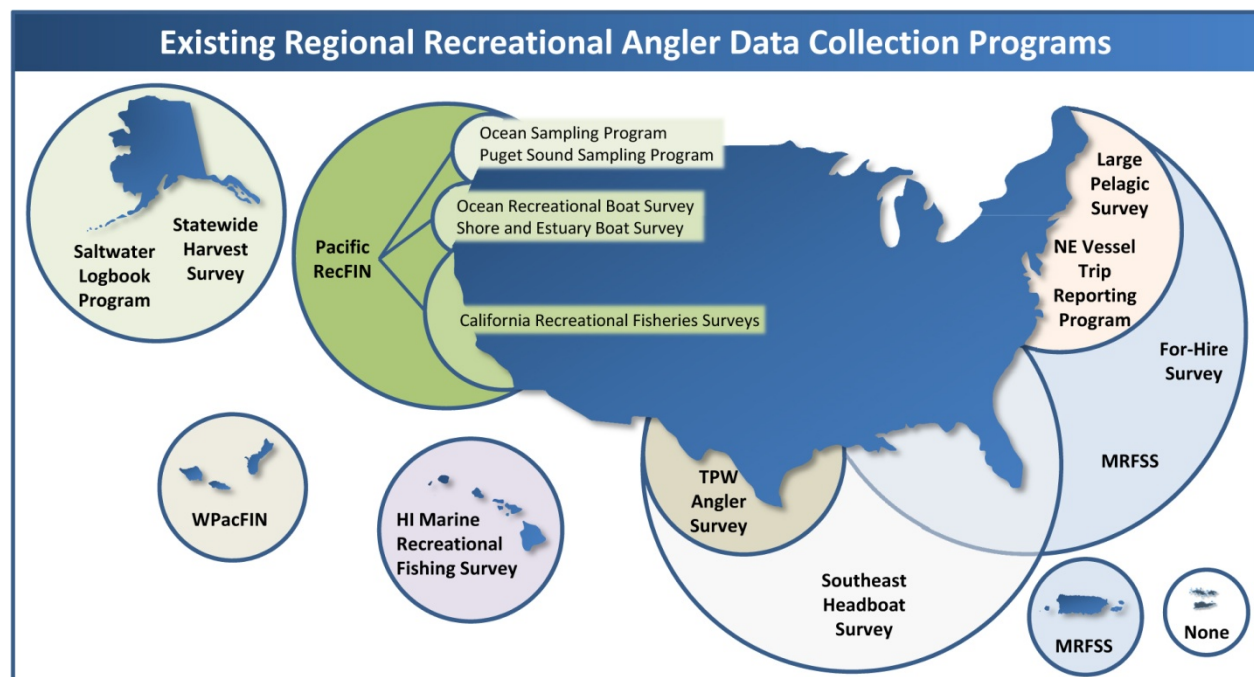
In recent years, the MRFSS approach was replaced on the Pacific Coast by a series of state surveys that are administered by the Pacific Recreational Fisheries Information Network (Pacific RecFIN) with partial funding from NOAA Fisheries. California now conducts a set of surveys that comprise the California Recreational Fisheries Survey (CRFS) Program. The CRFS includes a Party Charter Survey (PCS) that uses a variation of the FHS approach, a new angler directory telephone survey that collects fishing effort data from a sample of angler license holders, and a set of access-point surveys that collect both effort and catch-per-unit-effort data. In Oregon and Washington, ocean boat fishing effort and catch are monitored through the on-site sampling surveys of the Oregon Ocean Recreational Boat Survey (ORBS) and the Washington Ocean Sampling Program (OSP). Oregon's Shore and Estuary Boat Survey (SEBS) and

Washington's Puget Sound Sampling Program (PSSP) provide the only coverage of non-ocean fishing in those states, and both of these approaches have utilized access-point surveys in conjunction with new angler license frame telephone surveys.

There are a number of more specialized surveys conducted by NOAA Fisheries and the states. The Large Pelagics Survey (LPS) was started by a number of Atlantic states and later developed by NOAA Fisheries as a means of monitoring off-shore fishing effort and catch for highly migratory species. The Southeast Headboat Survey (SEHS) is a logbook program for monitoring fishing on headboats from North Carolina to Texas. A number of states, including South Carolina, Maryland, and Florida, conduct logbook data collections for monitoring certain segments of the for-hire fishery.

Marine recreational fishing surveys in Alaska and Texas are administered by state natural resource agencies. Recreational fishing surveys in the Western Pacific Territories are conducted by the territorial governments with support from the Western Pacific Fisheries Information Network (WPacFIN) and the NMFS Pacific Islands Fisheries Science Center. Appendix A provides an overview of regional data collection programs.

The MRFSS was originally developed to estimate annual fishing effort and catch by species on a regional scale, but demands for recreational fishing statistics have changed considerably since the inception of the survey. Fisheries management and stock assessment practices now require more timely and accurate estimates at finer geographic and temporal scales, challenging use of estimates generated by the current program. In addition to the evolving demands for recreational fishing data, there has been widespread criticism of the MRFSS from recreational fishing stakeholders as fishery managers respond to the impact of recreational fishing on stock sizes by regulating recreational fisheries through seasonal closures and size and catch limits.



## A New Direction

MRIP is being designed to provide better regional monitoring programs for recreational, or non-commercial, fishing participation, fishing effort and catches, landings and releases of finfish species in marine waters and estuaries for all of the 50 states and the U.S. territories and Commonwealths.

Initiated in 2006, MRIP is a collaborative, multi-institutional effort to develop and implement an improved recreational fisheries statistics program. The new program will be a system of surveys that provides the best possible scientific information for use in management of the Nation's marine recreational fisheries.

Due to the dynamic nature of fisheries and fisheries management practices, MRIP must be:

- Flexible enough to be updated, modified, expanded, or contracted to meet specific regional or local informational needs;
- Robust enough to provide the most precise and least biased information possible;
- National in scope but regionally specific, recognizing that each region (Atlantic Coast, Gulf Coast, Pacific Coast, Pacific Islands, Alaska, and the Caribbean) has unique informational needs and data collection issues; and
- Be inclusive and transparent, providing scientists, managers, and stakeholders an opportunity to participate in its development and use.

## Development of MRIP

### National Research Council Review of Recreational Fisheries Survey Methods

In response to the growing demand for an improved recreational fishing data collection program, NOAA Fisheries commissioned the National Research Council (NRC) of the National Academies of Science to conduct a high level, scientific review of current survey methods used by NOAA Fisheries and its partners to monitor recreational fishing catch and effort.

Specifically, the NRC was asked to:

- Assess existing surveys and their suitability in monitoring effort and catch in the shore-based, private boat, and for-hire boat recreational fisheries;
- Evaluate how well these methods were providing the quality of information required to support accurate stock assessments and responsible fisheries management decisions; and
- Recommend improvements to ensure more accurate and precise estimates of recreational effort and catch.

The NRC's Ocean Studies Board formed a 10-member committee of experts in sampling design and statistics to conduct the requested review independent of NOAA Fisheries. The committee held a series of five public meetings in 2005 to gather information about the current survey programs in each region. A final report of their findings (*Review of Recreational Fisheries*

*Survey Methods*) was published in April 2006. It identified a number of potential problems with the sampling and estimation designs used in current surveys, and questioned the adequacy of existing surveys in providing the statistics needed to support stock assessments and the kinds of fishery management decisions required by current law and practice. The report recommended that current surveys be redesigned to improve their effectiveness, the appropriateness of their sampling procedures, their applicability to various kinds of management decisions, and their usefulness for social and economic analyses.

The following table summarizes significant NRC findings and how the MRIP is addressing them:

NRC Recommendation	MRIP Response
<ul style="list-style-type: none"> <li>Reduce potential bias by ensuring estimation procedures are consistent with sample designs.</li> </ul>	<ul style="list-style-type: none"> <li>✓ MRIP partners are reviewing and adjusting current sampling and estimation methodologies to ensure that procedures are consistent, statistically valid and unbiased.</li> </ul>
<ul style="list-style-type: none"> <li>Establish a comprehensive, universal sampling frame of saltwater anglers.</li> </ul>	<ul style="list-style-type: none"> <li>✓ NOAA Fisheries is developing a Saltwater Angler Registry, with a final rule to be released on or about November 1, 2008.</li> </ul>
<ul style="list-style-type: none"> <li>Use dual-frame sampling procedures wherever possible to reduce bias.</li> </ul>	<ul style="list-style-type: none"> <li>✓ MRIP partners are implementing a dual-frame pilot survey in North Carolina and the Gulf of Mexico to increase the efficiency and coverage of angler effort surveys.</li> </ul>
<ul style="list-style-type: none"> <li>Achieve a greater degree of standardization among the state surveys and the centralized MRFSS.</li> </ul>	<ul style="list-style-type: none"> <li>✓ MRIP partners have created an MRIP Data Management and Standards system to document and analyze existing data collection programs with the goal of making recommendations for minimum data elements and standards.</li> </ul>
<ul style="list-style-type: none"> <li>Address under-coverage of private-access and nighttime fishing and develop procedures to better account for these fishing activities.</li> </ul>	<ul style="list-style-type: none"> <li>✓ MRIP partners are assessing potential bias associated with under-coverage of these fisheries; testing assumptions about differences in catch rates; and assessing impact of potential biases on final catch and effort estimates.</li> </ul>
<ul style="list-style-type: none"> <li>Designate for-hire fisheries as commercial fisheries and conduct for-hire surveys and reporting separately from those for private anglers.</li> </ul>	<ul style="list-style-type: none"> <li>✓ MRIP partners are conducting an independent review of various methods used to assess catch and effort in the for-hire sector. They are also developing and testing an electronic reporting program in Puerto Rico.</li> </ul>
<ul style="list-style-type: none"> <li>Explore alternate methods of independently verifying survey results and trends.</li> </ul>	<ul style="list-style-type: none"> <li>✓ NOAA Fisheries is working with partners to identify proposals for pilot projects to capture different types of corroborative data.</li> </ul>

<ul style="list-style-type: none"> <li>▪ Get better information about catch not brought back to the dock for inspection.</li> </ul>	<ul style="list-style-type: none"> <li>✓ MRIP partners are identifying and assessing alternative methods to collect more reliable and detailed information on released catch.</li> </ul>
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### Magnuson-Stevens Reauthorization Act

In January 2007, President Bush signed a bill into law reauthorizing the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The Act directs the Department of Commerce to implement an improved recreational fisheries survey program by January 1, 2009. To promote collaboration with partner agencies and recreational fishing stakeholders, MSA stipulates that the improved survey program must be developed “in consultation with representatives of the recreational fishing industry and experts in statistics, technology, and other appropriate fields”, and must “improve the quality and accuracy of information generated ... with a goal of achieving acceptable accuracy and utility for each individual fishery”. MSA further states that the improved program must also “take into consideration and, to the maximum extent feasible, implement the recommendations of the National Research Council in its report *Review of Recreational Fisheries Survey Methods* (2006)”. Unless alternate methods are deemed to be more efficient and effective, the survey program must, to the extent possible, include the following:

1. An adequate number of dockside interviews to assure accurate statistics;
2. Surveys of participation and effort that utilize Federal or State registries of anglers and vessels;
3. Collection and analysis of vessel trip report data from for-hire fishing vessels;
4. Development of a weather corrective factor to apply to catch and effort statistics; and,
5. Establishment of an independent committee “composed of recreational fishermen, academics, persons with expertise in stock assessments and survey design, and appropriate personnel from the National Marine Fisheries Service” to review data and statistics, identify deficiencies, and determine appropriate correction measures.

The MSA amendment also requires the Department to create a federal, regionally based registry program for recreational fishing by January 2009. The Act specifies that the registry must include all anglers who engage in recreational fishing in the Exclusive Economic Zone (EEZ), for anadromous species, or for Continental Shelf fishery resources beyond the EEZ. The registry program must obtain identification and contact information that is suitable for use in conducting recreational fishing surveys.

### Denver Recreational Fisheries Statistics Requirements Workshop

Both the NRC’s scientific review and enabling legislation of the MSA cleared the way for NOAA Fisheries to take a fresh look at the methods used to collect recreational fishing data. One of the first steps taken in developing the new program was to assess data needs of the users and determine how different regional requirements might affect design of regional survey programs.

NOAA Fisheries convened a three-day workshop on recreational fishery statistics requirements in Denver, CO on September 5-7, 2006. The workshop was a collaborative effort among regional fishery managers, stock assessment scientists, and survey statisticians to examine



recreational fishing information needs. Representatives of state and federal agencies, interstate marine fisheries commissions, and NOAA's Marine Fisheries Advisory Committee (MAFAC) attended the workshop.

Participants were divided into work groups to discuss the following topics:

- Management and stock assessment practices
- Data needs for stock assessment and management
- Methodological improvements
- Balancing national and regional data requirements
- Developing an outreach and communication strategy

Recommendations in the proceedings of the workshop are an extensive menu of the needs for improving data collection programs important for national and regional needs. They include:

- Comprehensive registry of all saltwater anglers
- Improving spatial and temporal resolution
- Better data on extent and disposition of discarded catch
- More timely delivery of data to management entities
- Better assessment of effort and landings from private access points
- Better alignment of effort and intercept survey design
- Standardization of methodology among the states and regions
- Recognition and incorporation of regional differences in data needs

Workshop participants discussed the effects of angler perceptions about data collection programs and how those perceptions affect willingness to participate in surveys and the quality of data. Recommendations for expanding and improving outreach and communication programs include:

- Customize outreach programs to meet regional needs
- Improve training for and communication with field interviewers
- Increase constituent involvement in the surveys and outreach programs

The workshop report can be found at the following website:

([http://www.st.nmfs.noaa.gov/mrip/events/downloads/Workshop\\_Report\\_final.pdf](http://www.st.nmfs.noaa.gov/mrip/events/downloads/Workshop_Report_final.pdf))

### **Nationwide Listening Sessions**

A guiding principle of the MRIP is that it be designed and implemented with input from those relying on the data for management and business decisions. Consistent with that principle, NOAA Fisheries made an extensive effort to meet with recreational data customers in every region of the country as part of the MRIP design process.

These regional "listening sessions" with the agency's science and management partners took place during the spring and summer of 2008 (summaries are available at [www.CountMyFish.noaa.gov](http://www.CountMyFish.noaa.gov) under "Meetings and Events" tab). In addition, there were numerous less formal sessions including community and club gatherings, one-on-one meetings,

and other outreach events to hear directly from fisheries managers, the commercial and recreational fishing communities, conservationists, and other interested parties.

The following table summarizes the major findings of those sessions:

Key Stakeholder Comments	
<ul style="list-style-type: none"> <li>▪ Avoid a one-size-fits-all approach to data collection; recognize the different needs of different regions and emulate existing best practices.</li> </ul>	<i>The purpose of listening sessions was to determine specifically which issues partners felt were the most critical to address to ensure that MRIP would be most suited to their needs.</i>
<ul style="list-style-type: none"> <li>▪ Consider gathering corroborative data in addition to angler surveys and intercepts, such as fuel costs, weather trends, etc.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Increase the frequency of data collection and reporting to ensure for timely management decisions; collect data for a longer portion of the year.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Increase the number of species accounted for in the system of surveys.</li> </ul>	<i>Their input – much of which mirrored the NRC recommendations – is helping to serve as a road map for both immediate-term implementation decisions as well as long-term program design.</i>
<ul style="list-style-type: none"> <li>▪ Increase the geographic resolution of surveys.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Account for issues such as night fishing, shore-based fishing, fishing from private access points, competition fishing, and release mortality.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Recognize and design for the explicit nexus between catch and effort data and the establishment of Annual Catch Limits.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ Account for the socio-economic impact of recreational fishing, especially its contribution on the wellbeing of coastal communities.</li> </ul>	

## Organization

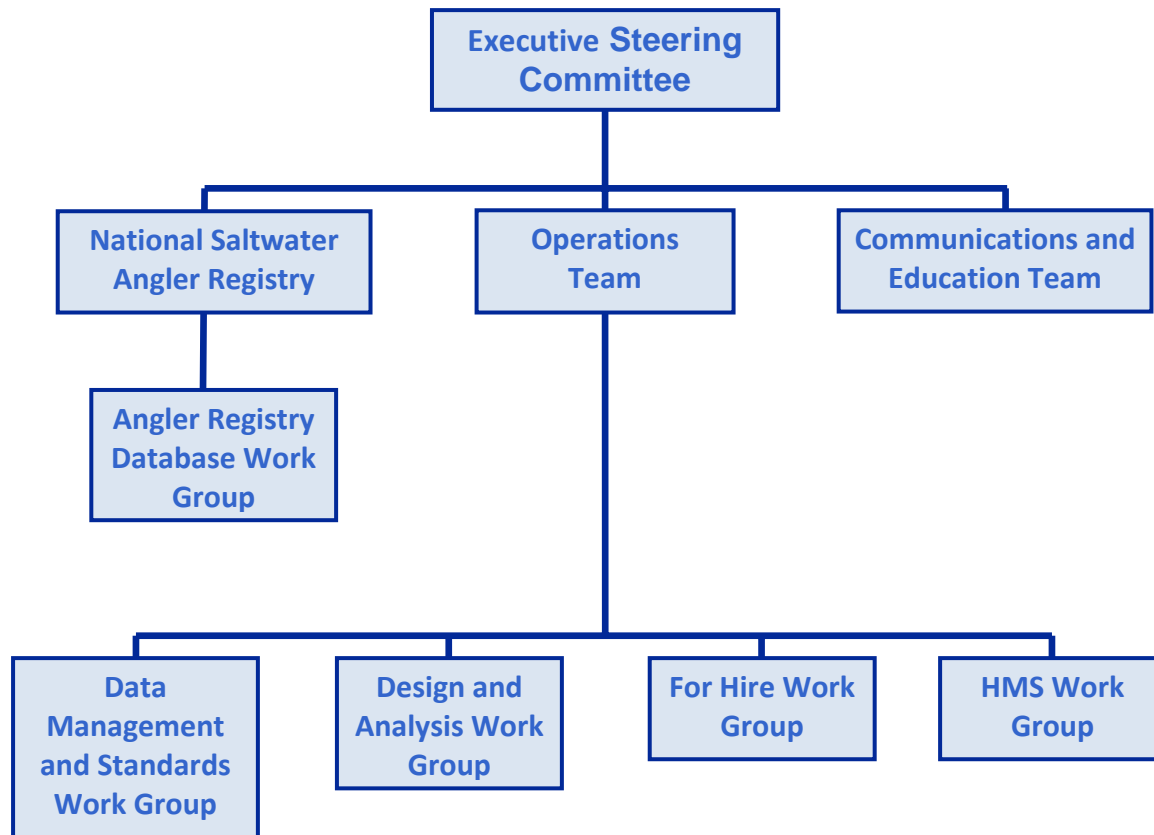
An Executive Steering Committee oversees the MRIP. It is chaired by the director of NOAA Fisheries' Office of Science and Technology and provides advice on program management issues, secures the resources needed to develop and implement data collection improvements, and ensures that the collaborative design of the MRIP proceeds in a manner consistent with the fundamental policies and general principles of the partner agencies.

The Executive Steering Committee established three MRIP leadership teams that are responsible for developing and implementing an improved data collection program for recreational fisheries, and, promoting communication between and among NOAA Fisheries, partner organizations, and constituents. Leadership teams include representation from a broad range of organizations, expertise, and interests, and have the flexibility to establish work groups to address topical or regional issues as needed. The MRIP leadership teams include:

- Operations Team: oversees day-to-day development of survey design and data management improvements;
- Angler Registry Team: responsible for development of Federal registry of recreational, saltwater anglers;

- Communications and Education Team: carries out strategic communications to ensure partners and constituents are engaged in the redesign process and kept well informed and apprised of the initiative's progress.

### *MRIP Organizational Chart*



### Identifying and Implementing Survey Improvements

The top priorities for any improved data collection system should be to identify and implement data collection and data management improvements. For MRIP, that task is the responsibility of the Operations Team, which includes representation from state natural resource agencies, fishery management councils, interstate marine fisheries commissions, the recreational fishing industry, and NOAA Fisheries. The Operations Team conducted a thorough review of the NRC's report, the proceedings from the Denver Requirements Workshop, and the MSA, and identified over 120 recommendations for improving recreational fishing surveys. These were consolidated into 29 recommendations prioritized for each region. Priorities were based upon factors such as anticipated impact, ease of implementation, and dependencies upon other recommendations. Several recommendations were not prioritized because they were already being addressed, beyond the scope of the Operations Team's responsibility, or identified as general themes that would be addressed through the cooperative nature of the MRIP process.

Upon approval of the prioritized recommendations by the Executive Steering Committee, the Operations Team developed a Work Plan for Improving Marine Recreational Fishing Data Collection Programs. It established five work groups to develop and implement research projects related to survey design, data analysis, data management and standards, data collection for for-hire fishing, and data collection for HMS fishing. The work plan can be found at the following website:

([http://www.st.nmfs.noaa.gov/mrii/documents/Work\\_Plan\\_for\\_Improving\\_Data\\_Collection\\_Programs.pdf](http://www.st.nmfs.noaa.gov/mrii/documents/Work_Plan_for_Improving_Data_Collection_Programs.pdf)),

The Operations Team later combined survey design and data analysis into a single category, resulting in the current four MRIP work groups:

- Design and Analysis Work Group (DAWG),
- Data Management and Standards Work Group (DMSWG),
- For-Hire Work Group (FHWG),
- Highly Migratory Species Work Group (HMSWG).

The members of these groups are the ones organizing and doing the hard, technical analysis needed to improve the surveys. Each work group consists of 10-20 members and includes representatives from State natural resource agencies, marine fisheries commissions, regional fishery management councils, NOAA Fisheries, and recreational fishing interest groups. Members were selected according to individual expertise in the work group's area of study and to provide balanced regional representation. Each work group was charged with selecting a chairperson who is responsible for ensuring effective communication within and among the work groups. The Operations Team conducts monthly conference calls with the work group chairs to facilitate this communication. These conference calls provide an opportunity for the work group chairs to update the Operations Team on project progress, as well as identify opportunities for collaboration among the work groups.

To initiate project development, the Operations Team hosted a workshop in St. Petersburg, FL in August 2007, where work groups received formal charges and were provided with an opportunity to begin project planning. Specific work group charges are included within the Work Plan for Improving Marine Recreational Fisheries Data Collection Programs. Generally, work groups were charged with developing and implementing projects that address the recommendations identified by the Operations Team.

Following the workshop, the work groups were asked to continue project development and submit final project plans to the Operations Team by the end of October 2007. Final project plans were to include an overview of each project, including the purpose and scope, a schedule and milestones, and an estimated budget.

After receiving final project plans, the Operations Team convened to review and prioritize the projects, and ultimately provide project funding recommendations to the Executive Steering Committee. Priorities were based upon the following criteria:

- Is the project consistent with the priorities identified by the Operations Team?
- Is the project consistent with the mandates of the MSA reauthorization to improve

recreational statistics?

- Significance of the expected project results. Do they have potential benefits that are worth the investment?
- Can the results of the project be expanded to improve national and regional programs?
- Practicality: are the scope, design, timeline, and budget reasonably matched?
- Will the project address an important management or science need?

Of the seventeen project plans submitted by the work groups to the Operations Team, sixteen were recommended for funding.

Recognizing the complexity of MRIP projects and the value of an outside perspective, the Operations Team solicited a team of statistical consultants to support the work groups. The Operations Team concluded that consultants would provide the expertise needed to effectively develop and execute projects, as well as provide additional credibility to project conclusions and work group recommendations. The consultant team includes three members from the NRC Review Panel. In addition to being experts in survey design and analysis, these individuals are familiar with existing recreational fishing data collection programs through their involvement with the NRC review. These individuals were asked to support the MRIP work groups, as well as recommend additional consultants to support the MRIP process. Currently, twelve consultants from academia and private survey design firms are supporting MRIP projects.

### APPENDIX III- Summary of Registry Rule

The Final Rule to implement the requirements of § 401(g)(1) of the Magnuson-Stevens Fishery Conservation and Management Act is encoded at 50 CFR § 600.1400-1417, and is summarized below. The complete text of the final rule can be found at:

[http://www.st.nmfs.noaa.gov/mrip/aboutus/organization/downloads/Saltwater\\_Angler\\_Registry\\_Final\\_Rule.pdf](http://www.st.nmfs.noaa.gov/mrip/aboutus/organization/downloads/Saltwater_Angler_Registry_Final_Rule.pdf)

The Final rule:

- Establishes the procedures and details of the registry program that implement the requirements of the statute;
- Was published in the Federal Register on December 30, 2008;
- Is effective January 29, 2009. The federal registration requirement is effective January 1, 2010.

Under the final rule, the following parties will need to register with NOAA Fisheries as of January 1, 2010:

- Persons and for-hire fishing vessels (party, charter and guide boats) which engage in angling or spearfishing for any fish in the U.S. Exclusive Economic Zone (“EEZ”) or for anadromous species (striped bass, shad, smelt, river herring, sturgeon, salmon) in any tidal waters;
- Angling or spearfishing includes fishing for, attempting to fish for, catching, or attempting to catch, fish using angling or spearfishing equipment;
- Operators of a for-hire fishing vessel in the EEZ;
- Persons and for-hire fishing vessels which possess angling or spear fishing equipment and which also possess fish in the EEZ or anadromous fish ion any tidal waters

The following are not required to register with NOAA Fisheries:

- Persons under age 16;
- Persons who are angling on a state or federally-licensed for-hire fishing vessel;
- Persons who are licensed or registered by an Exempted State, or who are not required to be licensed or registered under the laws of an Exempted State;
- For-vessels which hold a NMFS-issued for-hire fishing permit;
- Persons who hold a NMFS HMS Angling Category permit;
- Persons who are lawfully angling or spearfishing pursuant to a state-issued or NMFS-issued commercial or subsistence fishing license or permit.

Summary of the NOAA Fisheries registration process:

- Persons may register on-line at a web portal provide by NOAA at: [WWW.NMFS.NOAA.GOV](http://WWW.NMFS.NOAA.GOV), or by calling a toll-free telephone number.
- Individuals will submit name, address, telephone number, date of birth and region(s) of the country in which they expect to fish;

- For-hire fishing vessels will also submit vessel identification and location information;
- A temporary registration number, valid for 30 days, will be issued at the time of registration;
- A permanent registration card and number will be mailed to the registrant. The registration will be valid for one year from the date of issuance.
- There will no fee for registration in 2010. A fee will be charged beginning in 2011.

States may be designated as Exempted States in two ways. They may submit specified information about holders of state saltwater fishing license or registrations or by participating in a qualifying regional survey of marine recreational fishing. Exempted States must enter into a Memorandum of Agreement with NOAA Fisheries to formalize their agreement to submit the specified data.

Requirements for states to be designated as Exempted States based on submission of state license-holder or registration data:

- States must enter into an MOA and agree to submit license-holder or registrant data to NOAA Fisheries, at least annually;
- Data must include names, addresses and, to the extent available in the state's data base, telephone numbers and dates of birth of anglers and for-hire vessels/vessel operators who are licensed to fish, or who are registered as fishing, in the tidal waters of the states, or for anadromous species.

States may be designated as Exempted States, if their licensing/registration requirements exclude the following:

- Anglers on licensed for-hire fishing vessels;
- Anglers on state-licensed fishing piers, provided the state can account for such anglers in its data base;
- Anglers under age 16;
- Anglers over age 60 (for two years only);
- Active duty military personnel who are on furlough;
- Disabled persons.

States may not be designated as Exempted States, if their licensing/registration requirements exclude the following:

- Passengers on a private fishing vessel;
- Passengers in a beach buggy;
- Anglers fishing from private property;
- Anglers fishing from shore;
- Anglers fishing from a public pier;
- Anglers and for-hire fishing vessels fishing in some saltwater areas of the state.

States must also develop the following improvements to their license-holder/registry data within two years of being designated an Exempted State:

- Provide identification and telephone numbers for seniors who are not required to hold state licenses/registrations;
- Identify saltwater anglers within combination license-holder data bases;

- Refresh address and telephone numbers for holders of lifetime licenses.

Requirements for states to be designated as Exempted States based on submission of recreational survey data:

- State must participate in a qualifying regional survey of marine recreational fishing catch and effort;
- State must enter into a MOA with NOAA Fisheries and agree to provide data from the survey.

Qualifying Regional surveys must:

- Include all of the states within one of the following regions: Atlantic coast--Maine through Florida (east); Caribbean--Puerto Rico and USVI; Gulf Coast--Florida (west) through Texas; Pacific coast--California, Oregon, Washington; Alaska; Hawaii; western Pacific islands--Guam, American Samoa, CNMI.
- Utilize angler registry data to identify anglers to be surveyed by telephone, if the survey includes a telephone survey;
- Meet NOAA Fisheries survey design standards and best practices.