A photograph of a man and a young girl on a beach. The man, on the left, is wearing a blue polo shirt and white cargo shorts, looking out at the ocean. The girl, on the right, is wearing a pink sweater and pink patterned shorts, holding a fishing rod. The ocean has white-capped waves breaking onto the sandy beach. The sky is blue with light clouds.

Marine Recreational Information Program 2015 Implementation Plan Update

Better Data | Better Fishing

Improving Recreational Saltwater Fishing Estimates
Through Federal-Regional-State-Stakeholder Collaboration



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States and regions are now assuming the lead role in determining which specific methods to implement, where to target resources, and how to prioritize data programs to meet local management needs.

The MRIP Strategy for Improved Data Collection

Shared Vision for Recreational Data

Since its inception, the Marine Recreational Information Program, or MRIP, has worked with its partners and stakeholders toward a clear and concise vision for our nation's saltwater recreational fishing data collection programs:

Develop a series of scientifically sound, statistically robust regional surveys that all satisfy MRIP requirements for implementation funding.

Regionally based surveys are critical because the science, management, and stock assessment needs of each region vary significantly, as do the needs of the states within each region, and the different fisheries within each state. Simply put, there is no “one size fits all” approach to ensuring sustainable marine resources.

National certification and coordination is important in ensuring quality, maximizing resources, facilitating collaboration, and coordinating expertise to ensure we are continually producing the best

science possible, regardless of whether it is coming out of a state, a Regional Office or Science Center, or NOAA Headquarters.

At every level, the MRIP approach to meeting this vision has been through extensive collaboration and coordination with our state and regional partners, each of whom have different needs. For instance, on the Atlantic and Gulf Coasts, the focus has been on conducting a complete overhaul of our catch and effort surveys. On the West Coast, MRIP has primarily provided consultation and technical support to improve upon existing methods.

As more and more of the surveys we have worked together to refine, develop, and test are approaching final certification, states and regions are now assuming the lead role in determining which specific methods to implement, where to target resources, and how to prioritize data programs to meet local management needs.

Strategic Approach

The MRIP strategy for achieving this vision was developed based on a combination of inputs.

- A 2006 review of our methods by the **National Research Council (NRC)**. The NRC found that there were certain potential biases in our methods for collecting catch and effort data, as well as in the way we were using that data to make estimates. The NRC outlined a number of specific recommendations that formed the initial basis of the MRIP structure and workplan.
- The **2008 Magnuson-Stevens Reauthorization Act**, which essentially incorporated the NRC recommendations into Federal Law.

- **Extensive outreach and dialogue** with our data customers, partners, and stakeholders within the recreational fishing community. These included fishermen themselves, ocean conservation organizations, coastal communities, and others.

Three-Tiered Process

The strategy that emerged from this input has three components:

Phase 1: Evaluation. Prior to making improvements to survey methods, it is important to first ensure we fully understand both the benefits and

shortcomings of our existing survey methods. This process involves thoroughly assessing potential bias and data quality issues, as well as examining the tradeoffs between costs and benefits of factors like timeliness, geographic coverage, and precision. The evaluation process of our original survey inventory is now substantially completed. However, evaluation of new methods that have been implemented in the field is ongoing to ensure that they continue to meet the data needs of our partners and stakeholders.

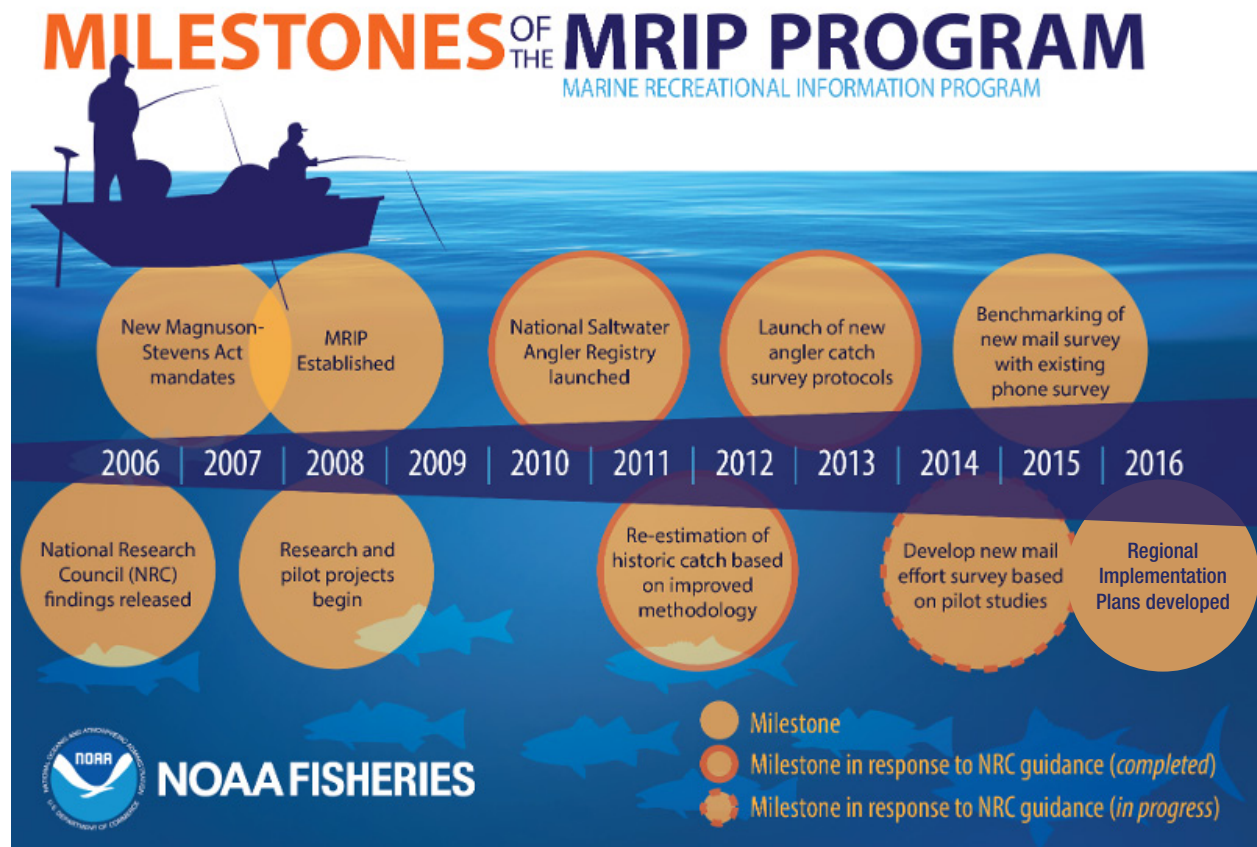
Phase 2: Innovation. This phase has constituted the bulk of MRIP's work. It is the process through which we generate ideas for improvements in our surveys, and work with regional partners to fund studies to develop and test these ideas. Projects that demonstrate clear potential receive additional rigorous testing and peer reviews of the results. To date, MRIP has provided about \$14.7 million through FY15 in funding to state agencies, regional partners, independent researchers, and others to develop and test a total of 105 regionally based pilot studies investigating survey and information management improvement strategies.

Phase 3: Implementation. We have learned through experience that implementing new methods in the field is a very complex undertaking. Therefore, the final phase of our strategy is a deliberate, process-oriented implementation approach. This part of our strategy has evolved significantly over time, and is now governed by a policy directive clearly articulating the steps from product development to certification to benchmarking to full implementation led at the regional level. Once a product is certified, regional data partners adapt it to meet local needs for timeliness, geographic coverage, and precision.

Comprehensive Strategic Plan

Drawing on successes and lessons learned since the launch of MRIP, in 2016 we will be working with our partners and stakeholders to develop a comprehensive strategic plan for the Program.

The plan will refine our approach to supporting survey improvements, as well as establish short- and long-term priorities, activities, resource needs, and metrics.



2016 Program Goals

MRIP Governance

Establishing and tracking progress toward program goals is the ultimate responsibility of the MRIP **Executive Steering Committee** (ESC), which guides MRIP's priority-setting and decision-making processes. Representing state, federal, and public interests, the role of the ESC is to provide:

- A connection between MRIP and the federal and state marine fisheries agencies, interstate marine fisheries commissions, and regional fishery management councils to ensure that user needs are being met;
- A means of accountability for the senior leadership of MRIP;
- Assistance in strategic decisions for MRIP; and
- Representation for MRIP in meetings of agencies and organizations outside of NOAA.

The ESC also reviews the workplans of each MRIP project team, which include technical and subject matter experts from federal, regional, and state agencies. 2015 team reports begin on page 9.

MRIP Executive Steering Committee

Members

Ned Cyr, NOAA Fisheries, Office of Science & Technology (chair)
Gordon Colvin, NOAA Fisheries, Office of Science & Technology (executive secretary)
Robert Beal, Atlantic States Marine Fisheries Commission
Dave Donaldson, Gulf States Marine Fisheries Commission
Randy Fisher, Pacific States Marine Fisheries Commission
Doug Mecum, NOAA Fisheries, Alaska Regional Office
Emily Menashes, NOAA Fisheries, Office of Sustainable Fisheries
Bonnie Ponwith, NOAA Fisheries, Southeast Fisheries Science Center
Russ Dunn, NOAA Fisheries, Office of Assistant Administrator

Participants

Dick Brame, Marine Fisheries Advisory Committee and Coastal Conservation Association
Miguel Rolon, Caribbean Fishery Management Council
Kitty Simonds, Western Pacific Fishery Management Council

Goals in Support of the MRIP Evaluation Strategy

Updated Review of MRIP Methods by the National Academies of Science, Engineering, and Medicine/ Ocean Studies Board (OSB)

With the implementation of our new Fishing Effort Survey, MRIP has made substantial progress toward implementing the recommendations from the initial NRC review. The 2016 review will provide an independent assessment of the current status and direction of MRIP, as well as recommendations for continued improvement.

Activities and Resources

The OSB review is an independent process and must remain so to ensure its integrity. Therefore the specific role of MRIP is limited to establishing the terms of reference for the review and providing as-needed logistical and information support to the OSB.

Goals in Support of the MRIP Innovation Strategy

Develop Electronic Reporting (ER) Methods

There is a great deal of interest throughout the recreational fishing data community in identifying scientifically sound, statistically robust methods for moving to electronic reporting of recreational catch and effort data within well-designed, statistically sound data collection programs. The goals of this work are to potentially improve timeliness and accuracy, as well as reduce costs and paperwork burdens.

Activities and Resources

For-hire electronic logbooks. MRIP has developed a comprehensive road map for implementing ER in the for-hire sector that will be activated throughout 2016. It incorporates the work of three separate pilot studies, and identifies the minimum requirements for ensuring such a program is successful. These requirements include compliance measures, the need for hardware and software development standards, and

the need for statistically sound designs for how e-log data are combined with data collected in independent dockside and/or at-sea surveys for the purposes of validation.

Sampler and angler electronic data capture and submission. With increases in smartphone use and internet access, intense interest in the use of ER technologies by dockside samplers and individual anglers has arisen. MRIP is committed to developing and expanding use of ER to provide catch data that is usable and statistically valid, exploring options that can be incorporated into our existing surveys as well as options that would be supplemental to them. Building on previous work in this area, MRIP is currently funding five separate pilot studies examining ER options for samplers and anglers.

Goals in Support of the MRIP Implementation Strategy

Launch of Regional Implementation Plans

As MRIP priorities increasingly focus on certifying our improved methods for implementation in the field, each region will be launching a plan in 2016 outlining its own unique implementation strategy. These plans represent a significant evolution in the course of MRIP, clearly establishing that each region will take the lead role in determining which survey methods are most suitable for their management needs. Each region's plan will detail priorities for coverage, resolution, precision, and timeliness of survey estimates; provide an analysis of existing programs and gaps; identify strategies for implementing improved methods; outline processes for integrating data from different sources; and include budget estimates.

To the extent there are overlapping needs and opportunities, regional data strategies will also support the priorities outlined in the National Saltwater Recreational Fisheries Policy. Regional activation of the Policy is taking place through a process that is separate from MRIP.

Activities and Resources

Operating in an expanded capacity over previous years, the MRIP Executive Steering Committee, which includes senior managers and representatives from NOAA Fisheries and Interstate Marine Fisheries Commissions, and participants from the NOAA Marine Fisheries Advisory Committee (MAFAC) and the Regional Fishery Management Councils, will be working closely with regional partners (primarily through the Fisheries Information Networks, or FINs) to develop and launch these inaugural MRIP Regional Implementation Plans.

Transition to the Fishing Effort Survey

In pilot studies seeking to improve how we measure fishing effort, there were indications that results from improved survey methods would be different from the past, and in some cases significantly different. Those findings held across eight years of testing, six pilot studies, and two peer reviews. So when it came time to begin implementing the new Fishing Effort Survey (FES) – which will abandon random-digit dialing of coastal households in favor of a mail-based survey that more efficiently targets shore and private boat anglers through a combination of saltwater fishing license and registration information and USPS address databases – we consulted with our partners on the most appropriate way to do so. Through this evaluation process, we made the decision not to make an immediate shift between the old and new surveys, but rather to institute change through a detailed, meticulous transition process.

Activities and Resources

Drawing on the expertise of national, regional, and state experts from an array of disciplines, MRIP created a Transition Team to determine the most effective way to incorporate new data into our existing body of knowledge of fishing effort, and to do so in a way that ensures both integrity of process and the sustainability of our resources. The plan is laid out in detail on our website at www.countmyfish.noaa.gov. It calls for a side-by-side comparison period to calibrate the new data against our legacy data, and a clear, well-defined process for incorporating this data into stock assessments and, ultimately, management decisions. The success of this process has led to it becoming the MRIP Fisheries model for introducing new survey methods.

2016 Program Goals at a Glance

MRIP Strategies

EVALUATION

Ongoing process of identifying strengths and shortcomings of existing methods.

INNOVATION

Developing, testing, and certifying new methods.

IMPLEMENTATION

Benchmarking, transitioning, and making new methods available for use.

Activities and Resources

Timelines and Milestones*

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

<p>OSB RE-REVIEW Analysis of progress made toward accomplishing 2006 recommendations.</p>	<ul style="list-style-type: none"> ◆ Formulation of review panel by the OSB. <li style="margin-left: 150px;">◆ OSB begins stakeholder meetings. <li style="margin-left: 350px;">◆ OSB deliberation and further fact-finding, as necessary. <li style="text-align: right;">OSB assessment and recommendations. ◆
<p>FOR-HIRE CENSUS/ E-LOGBOOKS Developing methods for charter and headboat operators.</p>	<ul style="list-style-type: none"> ◆ Work through FIN partnerships to incorporate options for new methods into regional plans. ◆ Provide technical assistance for Gulf of Mexico program design and equipment. (Ongoing.) ◆ Continue Alaska halibut charter electronic reporting pilot. Results anticipated late 2017. <li style="margin-left: 150px;">◆ Begin yearlong North Carolina/South Carolina charter boat pilot. Certification anticipated mid-2017. <li style="text-align: right;">Certify southeast Headboat dockside validation and at-sea validation sampling methods. ◆
<p>SAMPLER AND ANGLER ER Capturing data from samplers and anglers on a handheld device.</p>	<ul style="list-style-type: none"> ◆ Three pilot studies are underway examining a variety of electronic reporting options for anglers: <ul style="list-style-type: none"> ◆ Recreational angler electronic census reporting of red snapper catch data in Alabama. ◆ Internet-based angler logs as a source of fishery dependent data. ◆ Pilot Testing of the iSnapper smartphone app to collect recreational angler data in Texas. ◆ Other studies are underway examining electronic reporting options for samplers and observers, including: <ul style="list-style-type: none"> ◆ Electronic data collection by samplers in the Access Point Angler Intercept Survey. ◆ Electronic data collection by Oregon groundfish observers.
<p>REGIONAL IMPLEMENTATION PLANS Regionally driven approaches for meeting data needs.</p>	<ul style="list-style-type: none"> ◆ Draft plans underway. ◆ Meetings with FIN committees. (Ongoing.) <li style="text-align: right;">◆ External reviews of plans begin. <li style="text-align: right;">Plans completed and submitted. ◆
<p>NEW FISHING EFFORT SURVEY Transition to a new method of gathering effort data.</p>	<ul style="list-style-type: none"> ◆ Continued side-by-side testing of CHTS and FES (through December 2017). <li style="margin-left: 350px;">◆ Transition Team issues progress report describing final survey results from 2015. <li style="text-align: right;">◆ Begin evaluation of management, assessment implications. (Ongoing.)

*More detailed versions of plans, timelines, and metrics are available at www.countmyfish.noaa.gov

Since 2008, MRIP has provided about \$14.7 million in funding through FY15 to state agencies, regional partners, independent researchers, and others to develop and test a total of 105 regionally based pilot studies.

Supporting State and Regional Data Needs

2015 MRIP-Funded Pilot Studies



Alaska For-Hire Electronic Logbook Census. Implementing new electronic logbook program targeting fishing guides and guide businesses in Alaska.

Streamlining CRFS Data Transmission. Developing and documenting new procedures for transmitting CRFS data and estimates to the Pacific Recreational Fisheries Information Network (RecFIN).



Washington OSP/PSSU Data Transmission. Develop a new database for the Ocean Sampling Program (OSP) and Puget Sound Sampling Unit (PSSU) sample datasets and estimation programs to provide a “one stop shop” of recreational fishing data for science and management.

Upgrading RecFIN Database. Modernizing the RecFIN database and reporting tools to Microsoft SQL to provide a user-friendly way to access RecFIN data.



Hawaii Onsite Private Boat Catch Survey. Building on work that has taken place in the Gulf of Mexico and Atlantic Coasts, design and test an appropriate onsite survey to estimate catch rates from private fishing boats in Hawaii.

North Carolina and South Carolina For-Hire Electronic Logbooks. Developing NC and SC for-hire industry logbook reporting programs, with supporting validation survey design, that can be used to meet any existing federal logbook reporting requirements.

Promoting Participation in the National Saltwater Angler Registry in Louisiana. Reaching out to saltwater recreational anglers to explain the need to maintain current license information and provide them with simple instructions for online validation.



Alabama Private Boat Electronic Red Snapper Fishing Census. Refining the reporting methods and field validation protocols for reporting recreational red snapper landings by Alabama private recreational vessels.

Alabama For-Hire Electronic Red Snapper Fishing Census. Refining the reporting methods and field validation protocols and procedures for reporting recreational red snapper landings by Alabama for-hire vessels.

Testing the Impacts of One-Month Waves. Assessing the potential for bias resulting from measurement error in the Fishing Effort Survey and evaluating the impact of one-month vs. two-month reference waves on the precision and timeliness of estimates on the Gulf of Mexico and Atlantic Coasts.

Estimating Effort through On-Site and Follow-Up Mail Surveys. Testing approaches to obtain more accurate effort estimates through onsite surveys as part of the Access Point Angler Intercept Survey (APAIS). Also investigating factors that affect the accuracy of effort estimates, and testing a follow-up mail survey to measure public and private access fishing.



APAIS Electronic Data Collection. Developing and testing software that is adaptable for use in Atlantic Coast APAIS with flexible questionnaires that are suitable for a mobile tablet interface.

Developing Pilot Studies

PRIORITY-SETTING

Through ongoing discussions with our data customers and stakeholders, annual research priorities are established by the MRIP teams and the Executive Steering Committee (ESC). The ESC also approves the overall MRIP budget based on Congressional appropriation.

SOLICITING PROPOSALS

The unique data needs of each region, state, and fishery vary significantly. Therefore, ideas on how to design and test methods that will best meet MRIP priorities are solicited from a wide array of institutions, including States, Fishery Information Networks, Fishery Management Councils, Regional Offices, Science Centers, and Headquarters offices.

REVIEW AND AWARD

Depending on scope, proposals are reviewed either by the Operations or Information Management teams, which are composed of federal, regional, and state representatives. Recommendations are approved by the ESC. Progress on the project is tracked and publicly available on the MRIP website.



Sharing Solutions among States and across Regions

Electronic Reporting on the West Coast

The Pacific States Marine Fisheries Commission (PSMFC) began developing electronic reporting technologies through an MRIP pilot project in 2012. Currently, follow-up studies are underway in each West Coast state across different fishing modes. In **California**, private boat samplers have been experimenting with handheld devices instead of paper and pencil forms for collecting survey responses. The work has proved promising, and was directly applicable to launching similar projects in **Washington** and other states, and for additional modes of fishing. In **Oregon**, a study is underway to enable at-sea observers, rather than shoreside samplers, to electronically record catch information. These methods have a demonstrated potential to significantly enhance survey accuracy, timeliness, thoroughness, and flexibility.

Ensuring access to data is as important as collecting it. The Pacific Recreational Fishing Information Network (RecFIN) has taken the lead on updating its regional database to enable efficient integration of data from these new sources, and to improve the user interface.

Adapting APAIS Methods in Hawaii

In 2013, MRIP launched improvements to the Access Point Angler Intercept Survey (APAIS) used to measure catch on the Atlantic and Gulf of Mexico Coasts. The new design removed potential for bias in the previous survey through improvements such as sampling at night, more prescriptive sampling assignments, and the use of an online database of public access fishing sites to make assignments.

An MRIP-funded review of Hawaii's survey methods yielded multiple follow-up studies. They included a 2015 pilot study launched by the Pacific Islands Fisheries Science Center and the Hawaii Division of Aquatic Resources a to apply the new APAIS methods to the state's surveys of private boat fishing. Working with NOAA, Council, and independent consultants, the team will modify the design of the survey to match the unique characteristics of Hawaii's recreational fishery, and test the feasibility of implementing those designs in the field.

Atlantic and Gulf Coast Species-Specific Surveys

As fundamental survey improvements are implemented, a core MRIP strategy is to work with our partners to meet needs for timeliness, precision, and coverage. In the states of **Alabama**, **Florida**, **Mississippi**, and **Texas**, managers have specifically asked if there are ways to get more precise catch estimates for red snapper, along with similarly managed species, across shorter timeframes and for smaller geographic areas. Since 2013, MRIP and these partners have been working together to test solutions. With technical support from MRIP, the states have designed and are beginning to test new surveys in the field. As results are compiled, MRIP will facilitate independent reviews and potentially certify the new methods. At that point, MRIP and the states will collaborate to integrate the results of state and national surveys, and develop transition plans for their use.

State-Based Red Snapper Pilot Projects



ALABAMA A mandatory permit is required for vessel owners wishing to land red snapper in the state. All permit holders are required to report red snapper landings.



MISSISSIPPI Vessel owners are required to obtain a red snapper landing permit, which includes a unique code for reporting purposes.



FLORIDA Offshore reef fishing vessel permits are required. The permit database will serve as a red snapper survey frame.



TEXAS Statistically selected panels of representative anglers report red snapper landings using a smartphone app.



MRIP Team Reports

Operations Team

Key 2015 Milestones

Implementing a New Fishing Effort Survey. MRIP completed and peer reviewed a pilot study of the new mail-based Fishing Effort Survey (FES) for estimating marine recreational shore and private boat fishing effort on the Atlantic and Gulf coasts. The plan is to transition from the current Coastal Household Telephone Survey (CHTS) to the new design by 2018. Beginning in January 2015, MRIP has been conducting the two surveys side-by-side as part of the transition, which will continue through 2017. The complete transition plan is available on the MRIP website.

Certifying West Coast Sampling Programs. In 2010, MRIP funded a full review of the Oregon Department of Fish and Wildlife Marine (ODFW) Resources Program's Ocean Recreational Boat Survey (ORBS) and the Washington Department of Fish and Wildlife's (WDFW) Ocean Sampling program (OSP) and Puget Sound Sampling Program (PSSP), and have since funded numerous pilot projects for improving survey programs and designs recommended during the initial review.

In early 2015, both ODFW and WDFW submitted materials detailing their survey designs and programs for MRIP review and certification. ORBS and OSP programs are currently being peer reviewed to ensure survey and estimation methods are scientifically sound.

2016 Activities and Resources

Species-specific Survey Designs

- **Large Pelagics Survey Estimation and Design Projects.** The Large Pelagics Survey (LPS) project team anticipates the new estimation methodology will be completed and available for use in FY 2017. The LPS is a specialized survey designed to collect information on recreational fishing directed at large pelagic species such as tunas, billfish, and sharks. MRIP is exploring approaches to improve both the estimation methodology and the survey design of the existing LPS. The project team is finishing up two projects that address potential biases associated with the LPS, with final reports anticipated in FY 2016:
 - Inaccessible private access fishing trips in the LPS dockside intercept survey component; and
 - Non-response bias in the LPS telephone effort survey component.
- **Red Snapper.** Through partnership with the Gulf States Marine Fisheries Commission, state natural resource agencies, and NOAA Fisheries, all five Gulf coast states have been designing and testing surveys to estimate red snapper catch. From 2016-17, pilot surveys will be finishing up and states who are interested in implementing their survey will submit the design and results for an independent peer review and potential MRIP certification for use.

For-Hire Electronic Reporting. The team will continue to work with state natural resource agencies in North Carolina, South Carolina, and other states to develop improved methods for collecting and validating logbook records for the for-hire sector. The objectives of these projects are to:

- Obtain precise estimates of effort and catch from the charter boat fisheries;

About the Operations Team

The Operations Team designs, tests, and recommends improvements to NOAA Fisheries' recreational fishing data collection programs. Each year, the team collaborates on research projects with experts in survey design and management, natural resource management, and stock assessment science, and individuals representing the recreational saltwater fishing community. Since 2008, the Operations Team has funded 105 projects to develop improved survey designs that increase the accuracy of recreational fishing catch, effort, and participation estimates. Team members and participants include representatives from NOAA Fisheries, Regional Offices and Science Centers, regional Fishery Management Councils, Interstate Marine Fisheries Commissions, state agencies, and external stakeholder groups. More details about the team and its current membership are available on the MRIP website.

- Eliminate duplicate reporting where possible and minimize captain reporting burden;
- Develop standardized validation and adjustment methods to address off-frame, under-reporting, and incomplete coverage;
- Develop quality assurance and quality control procedures and other reporting standards; and
- Transition from paper reporting forms to electronic reporting for the charter boat sector.

Evaluate Alternative Data Collection Designs, Including:

- **Assessment of Bias in Existing Surveys:** Identify, quantify, and potentially mitigate sources of bias in existing surveys. Examples include examining differences in catch composition and catch rate between anglers who can and cannot be interviewed in onsite catch surveys; assessing error in reports of unobserved catch (e.g., discarded catch); and assessing recall error in offsite effort surveys (e.g., mail, telephone surveys).
- **Validation of Self-Reported Information and Survey Estimates:** Catch and effort surveys may be susceptible to reporting error due to their reliance upon unobserved, self-reported accounting of fishing activity. Ongoing research projects will explore methods to validate self-reported data and/or ground-truth survey estimates through independent data collections and/or accessory information.
- **Rare Event Species:** Sample sizes for general, multi-species surveys may be insufficient to provide reasonably precise catch estimates for species that are infrequently encountered. MRIP supports the development of alternative data collection designs, as well as modifications to existing designs, to provide more accurate estimates for these types of fishing activities.
- **Improve the Timeliness of Recreational Fishing Catch and Effort Statistics:** MRIP supports the development of data collection designs and processes that will result in more timely availability of catch and effort statistics.

Transition Team

Key 2015 Milestones

Transitioning to a Mail-based Survey. In early 2015, the team released its three-year plan for transitioning from the Coastal Household Telephone Survey (CHTS) to the new mail-based Fishing Effort Survey (FES) for estimating marine recreational shore and private boat fishing effort on the Atlantic and Gulf Coasts. The FES will run side-by-side with the CHTS from 2015-2017, with full use of FES estimates expected in 2018.

For the first two years of side-by-side benchmarking, NOAA Fisheries scientists will work to develop a model for calibrating the two sets of estimates. In 2017, calibrated historical time series estimates will be used for incorporation into stock assessments and setting of annual catch limits for key stocks in 2018 and beyond.

2016 Activities and Resources

Access Point Angler Intercept Survey (APAIS). Create and execute a plan for the transition of the APAIS calibration of estimates by evaluating three calibration methods, developed at the MRIP Calibration Workshop II in 2014, that could be used to properly account for any consistent differences in the statistical estimates produced by the new and legacy designs of the APAIS.

About the Transition Team

The Transition Team manages the multifaceted process of transitioning to improved survey methods by working together with Councils, Interstate Commissions, and NOAA Fisheries Regions. The team is co-led by NOAA Fisheries Office of Science and Technology and Office of Sustainable Fisheries. Team members and participants include representatives from NOAA Fisheries, Regional Offices and Science Centers, the regional Fishery Management Councils, the Interstate Marine Fisheries Commissions, and several state agencies. More details about the team and its current membership are available on the MRIP website.

Continue Facilitating the Implementation of the FES Transition Plan by:

- Working with the Northeast Fisheries Science Center and Southeast Fisheries Science Center to test the possible effects of different calibration scenarios on assessments for select stocks in each region;
- Continuing to develop an appropriate calibration model for re-estimating recreational catch statistics, into early 2017;
- Reviewing preliminary side-by-side estimates for January-August 2015;
- Reviewing final side-by-side estimates for January-December 2015; and
- Working with fisheries managers in anticipation of stock assessment preparations for 2017.

National Saltwater Angler Registry Team

Key 2015 Milestones

Updating to More Accurate Angler Registry Data. In 2015, the team received angler registry data from each of the Atlantic and Gulf coast states and entered the data into the national registry database. Notably, nearly all of the states have been able to provide monthly updates to their license databases, although they are only required to provide annual updates pursuant to the regulations that specify the state's requirements. Frequent updates to the list provide more precise frame-matching for the new mail-based Fishing Effort Survey (FES), which is now being conducted on the Atlantic and Gulf Coasts alongside the Coastal Household Telephone Survey to estimate marine recreational shore and private boat fishing effort.

The Angler Registry Team also continued to collect state for-hire vessel registries as a part of the MRIP Vessel Registry project.

2016 Activities and Resources

State Registry Database Updates. The Angler Registry team will continue to work closely with states to improve the quality and timeliness of state registry database updates and address any other requirements of the states' Memoranda of Agreements.

Support FES Implementation. The team will continue to maintain up-to-date angler registry databases for the Atlantic and Gulf Coast states and make them available for use in the FES.

Support More Accurate For-Hire Vessel Registry. The team will continue to obtain state data on for-hire vessel licenses and registrations to support MRIP's effort to establish a new and more complete for-hire vessel registry.

About the National Saltwater Angler Registry Team

The National Saltwater Angler Registry Team is responsible for the development and maintenance of the National Saltwater Angler Registry, a federal registry of recreational, saltwater anglers, and for-hire vessels. The Team is also responsible for the program that manages exemptions to the Registry for states that develop and share data from saltwater licensing or registration systems. Team members include representatives from NOAA Fisheries, the Marine Fisheries Advisory Committee, the U.S. Fish and Wildlife Service, Fishery Management Councils, Interstate Marine Fisheries Commissions, state agencies, and stakeholder organizations. More details about the Registry Team and state exemptions are available at the MRIP website.

Information Management Team

Key 2015 Milestones

In 2013, the Information Management Team began implementing a three-year operations plan focused on data access, analytical tools, and data quality management. This past year, the team continued to improve the accessibility and use of MRIP data through projects and initiatives, including:

For-Hire Vessel Directory. NOAA Fisheries, together with Atlantic and Gulf Coast partners, are working to develop a new online directory of for-hire vessels. Historically, regional partners have maintained separate lists of vessels, so the new online vessel directory will provide tools to reconcile field collected data with data available through the National Saltwater Angler Registry, as well as across states. The directory, which will be managed by NOAA Fisheries, will be used to develop and maintain sampling frames for surveys of the for-hire fisheries.

Pacific Coast Database Migrations. In a coordinated effort, the Pacific States Marine Fisheries Commission's Recreational Fishing Information Network (RecFIN), Oregon, Washington, and California are migrating to new databases. The overall goals of these projects are to simplify data access, enhance reporting, and improve consistency across the region. Individual projects are in varying stages of analysis, planning, and modeling.

Program Information Management System/MRIP Data Management Standard (PIMS/MDMS). Version 4.0 of the MRIP Data Management Standard (MDMS) was planned to focus on four specific areas:

- The collection of additional information management requirements;
- Annual/final report and peer review functionality;
- Broader use by multiple MRIP teams; and
- A public interface where the general public can submit requests for proposals for grants.

Early on, however, it became apparent that the expanded scope would have considerable application outside of MRIP as a consolidated tool for managing requests for proposals, as well as a publication tracking system and repository. In light of the increase in scope, MDMS has been rebranded the Program Information Management System (PIMS). PIMS was launched in June, and MRIP was the first RFP to use the system.

Continued Development of the MRIP Site Register. The team, in cooperation with our state partners, continued to improve the online registry of Atlantic Coast, Gulf of Mexico, Puerto Rico, and Hawaii coastal fishing sites by supporting state-specific needs and improving the overall user experience. The Site Register is used as a sampling frame for the shoreside APAIS conducted in these areas.

Continued Release of Data Query Tool Features. As part of ongoing efforts to enhance the query tools, this year the team implemented an email notification service. The new email notices are directly linked to the data downloads, minimizing the effort by users to get updated data.

About the Information Management Team

The Information Management Team supports the national-level processing and management of recreational saltwater fishing data by ensuring the comparability and compatibility of recreational fishing statistics among regional data collection programs. Team members include representatives from NOAA Fisheries, Regional Offices and Science Centers, Interstate Marine Fisheries Commissions, Fisheries Information Networks, and state agencies. More details about the team and its current membership are available on the MRIP website.

2016 Activities and Resources

Enable More Accessible Data. The team will include fully documented metadata (the contents and context of data) for all ongoing and legacy programs and make it available online to the public.

Improve Regional Databases. The team will continue to modernize regional databases to improve access to data and processing efficiencies.

Provide Data User Education. The team will develop tools to facilitate better communication of characteristics, processing, uses and limitations of the data.

Support For-Hire Vessel Directory. The team will continue to develop an integrated for-hire vessel directory.

Communications and Education Team

Key 2015 Milestones

Over the past year, the CET has continued to build on successes and lessons learned in working to enhance awareness and understanding of MRIP among our partners and stakeholders. Milestones for 2015 include:

Development of a Revised Strategic Communications Plan. Working with the MRIP team; other NOAA offices such as Communications, Sustainable Fisheries, Policy, and Legislative Affairs; MRIP Regions and Science Centers; and others, the Communications and Education Team developed a revamped strategic communications plan. The development of the plan aligns with the strategic direction of the Program as more and more pilot studies lead to new certified methods, and as the implementation of those methods are guided by regions and the FINs.

Rollout of a New MRIP Website. Working closely with the Information Management Team, the CET provided strategic and content development support for an updated website. The new design is more intuitive and provides better navigation options to ensure our stakeholders and partners can easily access the information they need. The site includes updated, detailed information about how we estimate recreational catch, the overall MRIP structure and approach, and how MRIP works with partners to produce recreational fisheries statistics to meet the science, stock assessment, management, and stakeholder needs of the nation. The website also includes more details about general survey estimation methods and which surveys are used in different regions of the country.

Communications Support for the Fishing Effort Survey (FES) Transition Team. The CET worked closely with the Transition Team to convey vital information to appropriate audiences, provide editorial and outreach support, and develop education and outreach materials, including talking points, fact sheets, online content, and the formatted plan.

More Options for MRIP Stakeholder Updates. Along with the general MRIP newsletter, the “Newscast,” users can now subscribe to a new notification service to receive emails when new information is available on specific topic areas. Notification options include:

About the Communications and Education Team

The Communications and Education Team (CET) carries out strategic communications to ensure partners and stakeholders are engaged in the survey redesign process and kept well-informed of MRIP’s progress. The Team also works to build national and regional-level awareness and support for the Program and trust in the data. Team members include representatives from NOAA Fisheries, Interstate Marine Fisheries Commissions, the Atlantic Coastal Cooperative Statistics Program, and Sea Grant. More details about the team and its current membership are available on the MRIP website.

- **Estimates:** Notices and updates on MRIP catch, effort, and participation estimates (PRELIMINARY and FINAL).
- **Public-use Datasets:** Notices and updates on MRIP public-use survey datasets (trip, catch, size).
- **Webqueries and Domain Estimation Programs:** News on the webqueries and template SAS programs for custom domain estimation.
- **Large Pelagic Survey Estimates:** Notices and updates on large pelagic species catch and effort estimates.

Regionally Tailored Field Materials. 2015 marked the third season the CET has worked with the states to develop both national and localized handouts for field samplers to give to anglers during the angler intercept survey. The idea for the materials came from our 2012 Atlantic and Gulf outreach trips that discussed improvements to our angler intercept surveys. The visits included angler focus groups to test the most effective way to present information. The suite of materials includes detailed flyers, “at-a-glance” wallet cards, and stickers that people who have been sampled can put on their tackle box, cooler, or boat trailer. The goal of the materials is to enable samplers – the people who most frequently interact directly with fisherman and largely serve as the de facto public face of MRIP – to hand out materials that answer anglers’ questions without interrupting samplers’ primary role as data collectors.

2016 Activities and Resources

Implementation of the Revised Communications Plan. The new plan builds upon our existing tradition of engagement and transparency with our partners and stakeholders. It also outlines a detailed process for deepening mutual understanding among the program and our audiences, including a rigorous series of interviews and needs assessments; strategies to develop measurement and tracking against intended outcomes; and clearly articulated timelines, deliverables, roles, and responsibilities.

Communications Support for Key MRIP Initiatives. The team will continue to provide targeted print, online, and multimedia outreach materials for MRIP studies, reports, workshops, products, and programs. Among the current top priorities for 2016 are:

- Continued outreach around the FES;
- Communications support of collaborative efforts to develop species-specific survey designs to meet the unique data needs of managers, scientists, stock assessors, and other stakeholders; and
- Working to clearly articulate the long history and move toward implementation of electronic reporting, most immediately in the for-hire sector.

Ongoing Expansion of the CET to Include Regional Teams. As new methods are implemented regionally, the team is working to better understand regional outreach needs and expand regional communications capacity by continuing to develop regional communications teams. Members of these teams will provide important insights into national priority-setting and messaging, as well as serve as the primary MRIP information sources for their regional partners and stakeholders.