NOAA Fisheries is an agency within the Commerce Department’s National Oceanic and Atmospheric Administration (NOAA). NOAA’s mission is to understand and predict changes in the earth’s environment and conserve and manage coastal and marine resources to meet our nation’s economic, social and environmental needs. The NOAA Fisheries Service provides world class science and stewardship.

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Marine Recreational Information Program
The Marine Recreational Information Program, or MRIP, is the new way NOAA Fisheries is collecting, analyzing and reporting recreational fishing data. The program brings scientists, managers, fishermen, state and federal agencies, and other stakeholders together to evaluate the way we’ve done things in the past and constantly working toward more reliable and trusted data for the future.

A 2006 independent review of NOAA Fisheries data collection methods serves as the blueprint for improvements under MRIP and priorities for moving forward. These are evaluated on an ongoing basis and presented annually in MRIP Implementation Plan updates. Plan updates are available at www.countmyfish.noaa.gov.

Milestones to date have included:
- Creation of the National Saltwater Angler Registry and State Exemption Program (NSAR). Under NSAR, the states of California, Oregon and Washington are designated as Exempted States, because the states participate in a regional survey of recreational fishing catch. Anglers and for-hire fishing vessels licensed by an Exempted State are not required to register with NOAA.
- The development of new, weighted methods for estimating catch from angler intercept data. Initially implemented for the Atlantic and Gulf coasts, the statistical principles of the new methodology have been applied to the designs of the west coast (RecFIN) surveys. Other Pacific coast survey methodologies are under evaluation.

Implementation in the West Coast Region
MRIP is a series of regionally-based data collection programs, adhering to a set of rigorous national standards. We work to implement improvements to the way data is collected and reported. Key MRIP projects and activities include:
- Workshops held with the Pacific Recreational Fisheries Information Network (RecFIN) developed improvements to survey designs for Washington, Oregon, and California. The improved methods were piloted in all three states.
- Future RecFIN workshops and regular meetings of its Technical Committee that will evaluate pilot project results and regional data needs, resulting in decisions about what improvements to methods and expansions to coverage will be implemented.
- In 2010, a complete review of the Washington Ocean Sampling Program and the Oregon Recreational Boat Survey was conducted. Both states have pilot tested recommended improvements and are ready to be considered for MRIP certification. MRIP has received a complete package from the Washington Sampling Program for review and will be receiving the Oregon Recreational Boat Survey certification package in the near future.

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Developing an Electronic Logbook to Census For-Hire Angler-Trip Effort, Catch and Harvest in Alaska plans to implement a new electronic logbook system for both freshwater and saltwater recreational fishing guides and guide businesses (i.e., for-hire industry). The new system will provide an electronic method to enter and submit logbook data. The short term goal is to design and develop electronic logbook applications, systems and database to meet ADF&G data needs in concert with outreach to the saltwater for-hire industry.

A Video Monitoring System to Evaluate Ocean Recreational Fishing Effort in Astoria, Oregon will install a multi-camera video monitoring system at three major access sites in the lower Columbia River estuary to track the number of boats departing from these sites. This new method will be compared to the current on-site boat count for this region to evaluate the accuracy, efficiency and reliability of the boat counting method for estimating fishing effort.

Pacific Coast Fish Identification Application proposes to design and develop a fish identification application that can be used on mobile devices by samplers and anglers to aid in accurately identifying observed and reported catch. An application like this could decrease the number of “unidentified” classifications of fish caught, as these are unhelpful for management of protected species.

Electronic Data Collection for Angler Intercept Surveys: Expand and Extend is a continuation and expansion of an MRIP project funded in 2012, Electronic Data Collection for Angler Intercept Surveys: A Pilot Project, which developed an electronic data collection tool for samplers surveying anglers in California. This new project is focused on making additional enhancements to the pilot project application, and also to create new spin-off versions of the application to be used in all fishing modes (e.g. shore, charter boat, etc.) and by other Pacific coast states.

Electronic Data Collection by Groundfish Observers – Pilot Project will develop and implement the use of electronic data collection by observers of the Oregon recreational groundfish fishery. Using electronic devices, as opposed to paper, could provide a more efficient and accurate (e.g., automatically reading GPS data while at sea) method of collecting at-sea data used for stock assessments.

Assessment of External Data Indicators as Predictors of Fishing Effort will develop, assess, and test predictive models to determine the efficacy of fishing effort prediction. The project will find external factors useful in predicting recreational fishing effort and to build a predictive model using external data elements that will more accurately predict effort.

Development of Relational Databases for Onboard Observer Data and Creation of Abundance Indices for Use in Stock Assessments is using historic data to develop a time series to support stock assessment efforts. The project is creating relational databases to provide linkages across the multiple individual databases needed for stock assessment.

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Ongoing Projects in the West Coast Region

Electronic Data Accessibility: Phase Two of Electronic Data Project is processing and summarizing fishing data to produce preliminary, daily reports to assist fishery sampling managers in day-to-day operations of fishing surveys. The objective is to manage and store catch and effort data, make it instantly available to data management teams, and provide summary reports and catch and effort information for fishery managers.

Redesigned California Recreational Fisheries Survey (CRFS) Sampling and Estimation Procedures for Surveys at Manmade Structures and Secondary Private and Rental Boat Sites evaluates different approaches for collecting data to determine the best approach for surveying anglers at California’s manmade structures and low-activity private and rental boat sites.

Completed MRIP-funded Projects in the West Coast Region

Electronic Data Collection Expansion – Washington assessed the durability, reliability, efficiency, accuracy and ease of using electronic mobile devices for conducting angler interviews. Tested in California, this project modified the data collection application to be Washington-specific and could make the data recording and analyzing process more efficient.

Discarded Fish Identification in the Private Boat Mode assessment study used disposable cameras handed out at the launch ramp to collect data on actual species discarded in the private boat fishery.

Oregon Ocean Recreational Boat Survey Point & Variance Estimation developed an estimation method that more closely matches the way the data are collected.

Recommendations for Sampling of Minor Ports in Washington expanded sampling to include minor ocean access ports during peak effort months to determine if minor access sites constitute significant effort or catch in the Washington ocean fisheries. The project aimed to address potential under-coverage issues in the sampling design.

Addressing Preliminary Recommendations from the MRIP Sponsored Review of Monitoring of Washington’s Ocean Sampling Program tested the recommendations from MRIP’s review of Washington’s Ocean Sampling Program. The review called for sampling all major ocean access ports every month, as opposed to during specific times of the year. This project aimed to determine how much error results from suspending sampling during certain months.

Characterizing Discards on Headboats compared self-reported data collected from dockside interviews with party or charter boats, including the California Recreational Fisheries Survey, to data collected by at-sea observers in order to quantify differences in catch rates and species composition between the two approaches.

continued
Completed Projects in the West Coast Region

**Highly Migratory Species North Pacific Albacore Project** looked at the best way to measure abundance of North Pacific albacore tuna. The project team recommended supplemental dedicated Highly Migratory Species albacore observers for California.

**2011-12 Oregon Ocean Recreational Boat Survey Supplemental Sampling** implemented recommendations from the MRIP review of the Ocean Recreational Boat Survey and collected data for ports and times that were not being sampled in order to improve the accuracy and precision of catch and effort estimates in Oregon’s recreational ocean boat fishery.

**Oregon Shore and Estuary-Boat Survey Design Review** will develop a new or revised survey methodology based on the objective, characteristics, and data needs of the fishery.

**Review of Current Sampling and Estimation Methods for Oregon and Washington Recreational Fishing Surveys** reviewed sampling and estimation designs of Oregon’s Ocean Recreational Boat Survey (ORBS), and Washington’s Ocean Sampling Program (OSP), Puget Sound Catch Record Card Study and Puget Sound Sampling Program to identify and evaluate opportunities for improvements.

**Review of Current Sampling and Estimation Methods for the California Recreational Fishery Survey** reviewed recommendations made by three expert statisticians to improve current sampling and estimation designs of the California Recreational Fishery Survey, including the Angler License Directory Telephone Survey, the Angler Catch Survey, and the NMFS Large Pelagics Survey.

**Review Winter Sampling of Ocean Fisheries in Washington** looked at potential under-coverage issues. The project expanded sampling to include non-peak seasons to measure the impacts of fishing during these periods.

For more information about these MRIP-funded projects and others, please visit www.countmyfish.noaa.gov.