

New report finds significant improvements in methods to collect data on recreational fishing

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Although individual anglers - people who fish recreationally - generally take small numbers of fish, collectively, a large number of them can have a substantial impact on the overall stock. For some species, the recreational catch even exceeds the amount taken by the commercial sector. Because recreational fishing involves so many individuals fishing from many different locations, it is difficult to estimate the number of fish caught - a crucial piece of information required for assessing and managing fisheries.

To collect this information, the National Marine Fisheries Service started a [survey](#) program in 1979 - the Marine Recreational Fisheries Statistics Survey (MRFSS). In 2006, the National Academies reviewed the MRFSS and called for a significant redesign. Over the past decade, the National Marine Fisheries Service has been responding to the recommendations made in that report with a redesigned program, the Marine Recreational Information Program (MRIP).

Now, a new [report](#) from the National Academies of Sciences, Engineering, and Medicine says MRIP has made significant improvements in gathering information through redesigned surveys, strengthening the quality of data. Although many of the major recommendations from the 2006 report have been addressed, some challenges remain, such as incorporating technological advances for data collection and enhancing communication with anglers and some other

stakeholders.

To estimate the number of fish taken recreationally, MRIP employs surveys that collect data regarding anglers' fishing trips and the quantity and species of fish caught. Using statistical analysis, the data collected provide fishery scientists with catch estimates that can be used to assess marine fish stocks and make management decisions.

One of the main components of MRIP is the Access Point Angler Intercept Survey (APAIS), which gathers information via interviews at shore or boat access points. APAIS collects information about fishing locations, the species and number of fish caught, the gear used, and the length of the trip. The report notes several APAIS improvements, including a standardized schedule for interviewing anglers at access sites during the day as well as night. The interviewers may examine the catch for species identification and may also weigh and measure the catch. In some cases, interviewers accompany anglers on for-hire boats to collect data on the catch.

The other primary component of MRIP is the Fishing Effort Survey (FES), which estimates the number of trips taken by anglers. The committee that wrote the report found that new methodologies used in the current FES, such as the address-based mail survey, resolve many of the shortcomings associated with the random digit dialing approach used in previous phone surveys. To enhance the quality of this survey, the report recommends adding a specific question on fishing location, such as whether private or public-access sites are used.

The report states that the overall statistical soundness of the redesigned program is expected to lead to better estimates of total fish caught. However, there are still some statistical challenges to address, for example those related to missing data such as refusals to complete the interview during a survey, language barriers, or lack of response to the

mail survey by some anglers. Such missing values may affect estimates if the behavior of non-responding fishers is different from those who participate in the survey. The report also notes that communications with anglers about the role of the national program have not resolved the anglers' lack of confidence in the survey methodology. The committee recommended that MRIP develop a national communications strategy involving state and federal partners to educate fishers and stakeholders on the role of MRIP.

Provided by National Academies of Sciences, Engineering, and Medicine

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