



Photo: Massachusetts Division of Marine Fisheries



## NOAA FISHERIES

### Marine Recreational Information Program

NOAA Fisheries collects recreational fishing data through our Marine Recreational Information Program. This state-regional-federal partnership develops, implements, and continually improves a national network of recreational fishing surveys to provide estimates of recreational catch and effort. Our value as part of the recreational fishing data collection partnership is to produce year-to-year and long-term patterns in recreational fishing activity covering many species, which is critical to informing stock assessments.



# Estimating Recreational Fishing Trips: The Fishing Effort Survey

From Maine through Mississippi and in Hawaii, we administer a household mail survey called the Fishing Effort Survey. The FES collects number of days fished in state of residence from shore and private boats (including rentals) for specified time periods for each resident of a responding household.

### How do you determine who gets the survey?

We use a U.S. Postal Service list of residential addresses matched to the National Saltwater Angler Registry (NSAR), which is a database of licensed anglers. This allows us to send more surveys to households that are more likely to report fishing, while still maximizing our chances of obtaining a representative cross-section of all households.

A new address list of licensed and unlicensed households is created prior to each mailing cycle. **Note:** NSAR is not used in Hawai'i; therefore, the survey is sent to a randomly selected subset of all residential addresses.

### How is the information used?

Data from the FES is used to estimate the number of fishing trips taken from shore and private boats. Our For-Hire Telephone Survey conducted along the Atlantic and Gulf coasts collects effort data from for-hire vessels. All catch information is collected via interviews conducted by our state partners at public access sites like docks and marinas. These surveys, coupled with our Large Pelagics Survey (administered from Maine through Virginia) and supplemental surveys, inform the total recreational catch for a species.

Recreational data collected from these surveys—alongside separate commercial, observer, and biological data such as age, growth, and reproduction rates—help inform stock assessments and fisheries management decisions that aim to achieve sustainable fisheries for future generations.

### How many mail surveys do you send out?

More than 300,000 residential households across 17 states receive the FES each year. It is currently mailed every 2 months. To increase response rates, the FES also includes questions about weather and outdoor activity.

### If I haven't been surveyed, how do I know my trips count?

Our sample surveys are designed to draw reasonable conclusions about the full recreational fishing community through information provided from a representative portion.

Given the dynamic nature of recreational fishing and the magnitude of fishing activity across our survey area, it would be very challenging to conduct a complete census of every fish caught and each fishing trip taken.



Photo: NOAA Fisheries

## How does responding to the FES promote healthy fisheries?

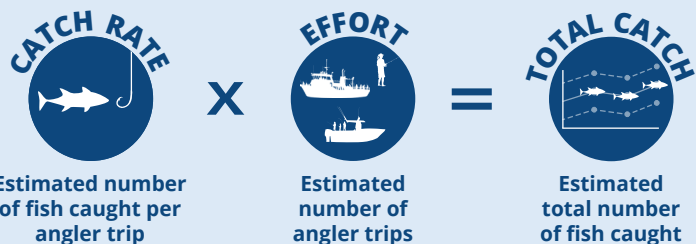
Sustainable fishing is a shared responsibility. Anglers are our eyes and ears on the water, and the central source of the information we use to estimate recreational fishing activity. Taking a few minutes to share complete information about your fishing trip is one of the most important contributions you can make for the successful conservation and management of our marine fisheries resources. A response from someone who didn't fish at all is just as valuable to our survey as one from someone who fishes frequently.

## How do you evaluate the quality of your data?

Our staff follows statistical survey best practices for quality assurance and control measures before our estimates are published. We check for errors in data entry and investigate any unusual changes in catch and effort trends. We also involve NOAA Fisheries' regional offices and science centers, who have local on-the-ground knowledge, in the review of preliminary estimates before they are published.

As part of our commitment to data quality and transparency, our catch and effort estimates are accompanied by a measure of precision. Estimates that are highly imprecise can be caused by a variety of factors, like too small of a survey sample size. This is factored into decision making by stock assessors and fisheries managers. We continue to evaluate and incorporate improvements to our estimation and estimate review processes.

## How is Total Recreational Catch Estimated?



The recreational catch and effort estimates we produce are broken out by state, region, fishing mode (shore, private boat, and for-hire vessel), and fish species. Estimates are made publicly available on our website.

## What's next with the FES?

As part of our continuous improvement process and evaluation of our survey methods, we are conducting a large-scale study of our FES informed by results of previous pilot studies. The intent is to understand the differences in angler recall and resulting effort estimates between the current survey design and a revised design that changes the order of fishing activity questions and increases the survey distribution to monthly.

Learn more:



Photo: NOAA Fisheries