Estimating Recreational Trips: The Fishing Effort Survey

From Maine to Mississippi and in Hawaii, we administer a household mail survey called the Fishing Effort Survey. The FES collects recreational fishing trip information for each resident of a responding household. To sample, we use a U.S. Postal Service list of residential addresses matched to the National Saltwater Angler Registry, which is a database of licensed anglers. This creates a sampling frame of licensed and unlicensed households, which are sampled at different rates. This allows us to sample more frequently from households that are more likely to report fishing, while still maximizing our chances of obtaining a representative cross-section of all households.

The FES is a significant improvement from the telephone effort survey it replaced in 2018. It was developed over several years through a series of pilot studies.

The FES collects recreational trip information for specified 2-month periods, as well as over the course of the previous year:

- Number of days fished from shore in state of residence
- Number of days fished from private or rental boat in state of residence

Our For-Hire Telephone Survey collects information about fishing activity from charter and headboat captains along the Atlantic and Gulf coasts.

How many mail surveys do you send out?

About 300,000 residential households across 17 states receive the FES each year. To increase response rates, the FES also includes questions about weather and outdoor activity. 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 is the information used?

The FES is part of a group of surveys NOAA Fisheries uses to estimate total recreational catch. These estimates are combined with commercial catch data, biological research, and information collected from direct observations of fisheries to help stock assessment scientists and fisheries managers evaluate and maintain sustainable fish stocks for future generations.

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

We take steps to survey households that are representative of the recreational fishing population in our target states. Sample surveys allow us to draw reasonable conclusions about the full recreational fishing community without having to collect catch and effort information from millions of saltwater anglers.
How is Total Recreational Catch Estimated?

A suite of additional programs collects information about recreational catch, for-hire fishing effort, and large pelagic fishing activity. The estimates we produce from our surveys 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.

How does responding to the FES benefit me?
When you share complete and accurate information about your fishing activity, you’re making a vital contribution to fisheries management and the health of your marine resources. Your participation in our surveys helps us produce more accurate estimates of recreational catch and effort.

How do you evaluate the quality of your data?
While no statistical surveys are free of errors, our staff practice extensive quality assurance and control measures before our estimates are published. This includes checking for errors in data entry and investigating any unusual changes in trends for high-interest, rare-event, and federally managed species. As part of our commitment to continuous evaluation and improvement, we regularly conduct research on our existing methods of data collection and pursue improvements to our survey designs.

What can I do to help?
You can encourage other anglers to participate in recreational fishing surveys; voice your support for state, regional, and national data collection programs; or get involved in fisheries management through your state marine fisheries agency, interstate marine fisheries commission, or regional fishery management council.

Photo: NOAA Fisheries