Measuring Recreational Catch:
The Fishing Effort Survey

How does NOAA Fisheries collect information about fishing effort from recreational anglers?

The mail Fishing Effort Survey collects information about the number of shore and private boat trips taken by recreational anglers on the Atlantic and Gulf coasts and in Hawaii. Because our sample needs to represent the fishing activity of all residents of participating states—and not just the residents who fish—all household members are asked to respond, even if they didn’t fish during the period of time the survey asks about.

How many mail surveys do you send out? How many people respond?

About 300,000 residential households across 17 states receive the Fishing Effort Survey each year, and response rates are consistently above 30 percent. Because research shows response rates increase when participants are compensated for their time and asked about topics other than fishing, the Fishing Effort Survey includes a $2 prepaid cash incentive and 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 fished every day.

How are the data used?

The Fishing Effort Survey 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 scientists and managers assess and maintain sustainable fish stocks. High-quality recreational catch estimates are fundamental to protecting the health of our ocean resources, the future of recreational fishing, and the millions of lives and livelihoods connected to the sport.

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

Because we take steps to ensure the sample of households we survey is representative of the population of our target states, we don’t have to survey each of the millions of saltwater anglers living in them to accurately estimate fishing effort.

Are your effort estimates reliable?

Our data collection and estimation methods are statistically rigorous, scientifically sound, and subject to peer review. When we compare estimates produced by the Fishing Effort Survey with external data—such as rod and reel imports, outboard engine sales, registered boats, and other organizations’ estimates of fishing participation—we see similar trends.

Has the transition to the Fishing Effort Survey impacted our understanding of fishing effort?

Estimates from the FES are much higher than those produced from the survey it replaced in 2018. However, this does not mean there are more people fishing. Instead, our research shows our new survey better measures the amount of fishing already taking place.

Transitioning to the Fishing Effort Survey required us to convert historical catch estimates to match the new survey’s design.
How do you use the Fishing Effort Survey to estimate total catch?

The Fishing Effort Survey collects information about the number of trips shore and private boat anglers take on the Atlantic and Gulf coasts and in Hawaii. A suite of additional data collection programs collect information about recreational catch, for-hire fishing effort, and large pelagic fishing activity. Catch and effort data are combined to estimate total catch, which informs scientific stock assessments and the public process of setting rules and regulations to support healthy and productive recreational fisheries.

Because the survey the FES replaced underestimated fishing effort, calibrating historical effort estimates raised them across the time series.

For fish stocks assessed to date, this increase has generally resulted in higher estimates of past abundance. Regional fishery management councils and interstate marine fisheries commissions are working to determine whether and how these increases will change resource allocations between sectors or among states.

What can I do to help?
If you’re asked to participate in a fishing survey, we encourage you to provide complete and accurate information, even if you didn’t fish, or didn’t catch anything. This will help us produce more accurate estimates of recreational catch. You can also 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.