

Seeking Shrimpers to Help Modernize Data Collection

We are looking for volunteers in the Gulf of Mexico shrimping industry to adopt a new effort monitoring system that will benefit both shrimpers and scientists. Did we mention you can choose your own device—and it's free?



NOAA Fisheries and the Gulf States Marine Fisheries Commission are encouraging the early adoption of a new system to update the data collection process for Gulf of Mexico shrimping effort. The new system will greatly increase the quality and efficiency of data collected to describe the Gulf shrimp commercial fleet, and reduce burden on the shrimping industry.

[Want to sign up? Here's how.](#)

Why Do We Collect Effort Data?

The shrimp industry is culturally iconic, and an economic driver for Gulf of Mexico coastal communities. In fact, it is the most valuable commercial species in the Gulf of Mexico. To ensure the fishery is sustainable in the long-term, fishery managers require information on the amount of fishing effort taking place to complete [annual stock assessments](#) for shrimp and other species. These effort data also help conserve protected species. It can also be used to minimize conflicts with other industries, such as wind energy, by identifying important shrimping grounds so the resources shrimpers depend on can be preserved.

Why Are We Changing the System?

Until recently, shrimp effort data were collected through a cellular [electronic logbook system](#). This system transmitted time-stamped vessel position data using a 3G cellular network to our scientists. However, 3G cellular technology was shut down in December 2020—driving the need for a modernized data collection protocol. Since this change, shrimpers have been physically sending in memory cards for data retrieval. Thankfully, there's now a better way.

Benefits of the New System

The new system involves installing cellular vessel monitoring system units on board federally permitted shrimp vessels in the Gulf of Mexico shrimp fleet. These systems will transmit vessel position data directly to the Southeast Fisheries Science Center via current cellular networks. Not only will this allow scientists to estimate shrimping effort more efficiently, but it will also provide benefits for individuals in the industry. Depending on the device installed, shrimp vessel owners can choose to access applications that allow them to view vessel position in near real-time if within cellular range, and save them for comparison.

What Data Will the System Collect?

The new devices track time-stamped vessel position to determine how much time is spent towing nets versus steaming to fishing grounds. This is converted to an estimate of effort in tow days. These effort data are used directly in stock assessments to estimate red snapper bycatch and are essential data to meet sea turtle conservation requirements. Position information also helps scientists identify important shrimping grounds that need to be taken into consideration in marine spatial planning. Scientists use this method to determine where certain activities may take place such as deploying artificial reefs, or developing aquaculture and offshore wind infrastructure.

How This Came About

The funds for this program were appropriated by Congress for NOAA Fisheries. With this funding, we worked with the Gulf States Marine Fisheries Commission and LGL Ecological

Research Associates, Inc. to test the new system. The team outfitted five federally permitted commercial shrimp vessels in Palacios, Texas with new devices alongside the existing devices. They found that new devices collected data as reliably as the old ones and successfully transmitted data to NOAA Fisheries.

“We hope the new system will modernize the data collection and allow us to ‘beta test’ a number of devices to inform the Gulf Council on what could eventually become the new standard for shrimp effort data collection”, said John Walter, Deputy Director for Science and Council Services at the NOAA Fisheries Southeast Fisheries Science Center.

How to Sign Up

The new devices are now available at no cost for a limited number of participants. The program will cover the cost for a limited number of cellular vessel monitoring system units, installation and maintenance, and 2 years of cellular service for the new device. We are seeking volunteers for this early adopter program through September 2024. Support through the early adopter program is available on a first come, first serve basis.

The Gulf States Marine Fisheries Commission has contracted with LGL Ecological Research Associates, Inc. to coordinate the early adopter phase of this effort modernization project.

Early adopters must hold a federal shrimp permit. Interested parties should contact LGL Ecological Research Associates:

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More Information:

[Shrimp Fishery Research and Stock Assessments](#)

[Electronic Logbook System](#)

[Fisheries, Assessment, Technology, Engineering Support \(FATES\) Division](#)

Images:



Image caption: Federally-permitted shrimp vessels, such as this one in Apalachicola Bay, Florida, are invited to sign up for new effort monitoring gear to improve the efficiency of shrimp stock assessment science.

