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INTERIOR AGENCY DEVELOPS SHOCK TREATMENT FOR CATCHING SHRIMP

Burrowing pink shrimp in the Gulf of Mexico are in for the shock of their lives if commercial fishermen begin using a new type experimental shrimp trawl now under development by the Department of the Interior's Bureau of Commercial Fisheries.

Certain kinds of shrimp spend the daylight hours in burrows on the ocean bottom. Shrimp fishermen work when the shrimp are available and, for catching pink burrowing shrimp in the Gulf of Mexico, this means fishing during darkness. Nighttime fishing is not too difficult for good fishermen. However, in order to have shrimp available for harvest at all hours, a method is needed for moving burrowing shrimp out of their holes during the day.

For nearly two years, the Bureau's research station at Pascagoula, Miss., has conducted laboratory and field experiments to develop an electrical shrimp trawl. The standard shrimp trawl usually has a "tickler" chain stretched across in front of it. This chain causes shrimp to swim up off the bottom so the net can scoop them up, but it is not effective at getting shrimp out of their burrows.

The theory behind an electrical shrimp trawl is to replace the tickler chain with an electrical field that will jolt burrowing shrimp out of their holes and into the path of the net. This would permit round-the-clock fishing, improving the efficiency of United States shrimp boat operators.

In a test run, the research vessel George M. Bowers sailed from Pascagoula with a 40-foot prototype electrical shrimp trawl aboard. When the vessel arrived on fishing grounds near Apalachicola, Florida, a standard 40-foot trawl with tickler chain was attached to the starboard outrigger and the electrical trawl was attached to the port outrigger. The two nets then were fished simultaneously.

"The results were electrifying," says the Fish and Wildlife Service.

Daytime catches per one hour drag with the electrical trawl ranged from 19 to 36½ pounds while the standard trawl catches ranged from 8½ to 14½ pounds. Night tests were conducted to establish the quantity of shrimp available in the area and these catches averaged 30 pounds per hour per trawl. Night catches with the electrical trawl were only slightly greater than with the standard trawl. The shrimp were not killed or injured by the electrical charge.

The electrical trawl is undergoing further testing on the Tortugas shrimp grounds in the Gulf. Gear research specialists of the Bureau of Commercial Fisheries believe that testing the new trawl on known commercial shrimp fishing grounds will confirm its effectiveness in harvesting one of the country's most popular seafoods.

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