

# Net Gains: The Gulf of Mexico Shrimp Fishery



Ocean Conservancy  
Start a Sea Change

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New innovations in fishing gear help both fishermen and the marine environment.



Photo: Sara Thomas

The Gulf of Mexico is home to a shrimp industry that supports coastal economies from Texas to Florida. Shrimp are also a critical part of the Gulf ecosystem, serving as a food source for a variety of marine life. While commercial shrimping in the Gulf dates back to the late 1880s, the industry expanded significantly after World War II, reaching its peak in the 1980s. An overly expanded shrimp fleet led to significant unintentional catch of other sea creatures. However, recent management measures and gear innovations have put the shrimp industry on a more profitable and sustainable course.

## Popular Gulf shrimp species

Shrimp fishermen primarily target three species of commercially important shrimp when they tow nets in Gulf waters: brown, white, and pink. These shrimp live their lives in estuaries and offshore habitat; juvenile shrimp start out in coastal marshes and migrate offshore as they mature. Shrimp live for about a year, and a single female produces between 215,000 and 1 million eggs every three days. So shrimp populations can readily provide a steady supply for consumers if managed well. As of now, none of the three species is experiencing overfishing and populations are thought to be healthy enough to sustain current fishing levels.

## Conservation challenges

While shrimp populations are doing well, challenges include the fact that shrimp trawls ensnare more than their intended catch of shrimp. With every pound of shrimp caught in the Gulf, an estimated four pounds of other species—known as “bycatch”—are unintentionally taken in. Bycatch is a big problem for fishermen who spend extra time and effort removing it from their nets. It is also a major marine conservation concern. For example, the bycatch of large numbers of young red snapper contributed to the decline of a species that is a commercial cornerstone of the Gulf fishing industry.

Fishery managers now require the use of bycatch reduction devices (BRDs) and turtle excluder devices (TEDs) in the nets of shrimp fishing boats. TEDs have been mandatory since 1987 and provide an escape hatch for endangered and threatened sea turtles. The endangered Kemp's ridley sea turtle appears to be recovering in the Gulf thanks in part to these live-saving devices. Loggerhead sea turtles, however, are still caught at unsustainable levels, despite new TED requirements in 2003 intended to help these larger turtles escape. While the number of loggerheads killed as a result of capture is low relative to the numbers that escape, the precarious state of this species may warrant further gear modifications to minimize turtle deaths.



Shrimp trawl nets with Turtle Excluder Devices (TED). Photo: Sara Thomas

Shrimping equipment and techniques can be environmentally problematic, too. Offshore shrimp vessels generally use large, heavy gear that compresses, penetrates, and scours the seabeds that are important habitat for bottom-dwelling species. These doors also create considerable resistance, or drag, in the water, causing trawler engines to burn a lot of fuel and release emissions that contribute to global climate change. Heavy fuel use also empties fishermen's wallets. In 2008, sky-rocketing fuel prices helped prevent nearly half the permitted shrimp boats from leaving the dock.

### Economic challenges

The Gulf shrimp industry has reached an economic breaking point. Valued at \$374 million in 2006, it had declined to \$354 million by 2008. Historically, the shrimp fishery was considered to be "overcapitalized"—too many boats chasing too few shrimp, spreading what profits there were to be had thinly across a large fleet. The biggest challenge fishermen face today, however, is the influx of lower-priced shrimp from abroad driving down the price of domestic wild-caught shrimp. According to the National Marine Fisheries Service, only about 10 percent of the shrimp consumed in the US is wild shrimp from US waters. The rest are imported, and mostly grown on fish farms—which can have environmental challenges of their own.

### Toward sustainability and profit

Exciting changes are underway, however. Ocean Conservancy has joined in a cooperative effort to get gear that is friendlier to the environment adopted more widely in the Gulf of Mexico. We're working to support the environmental and economic benefits of a healthier Gulf of Mexico and a healthier shrimp industry.

Together with pioneering fishermen, Texas Sea Grant, and the Sustainable Fisheries Partnership (SFP), Ocean Conservancy has launched the Gulf of Mexico Shrimp Fishery Improvement

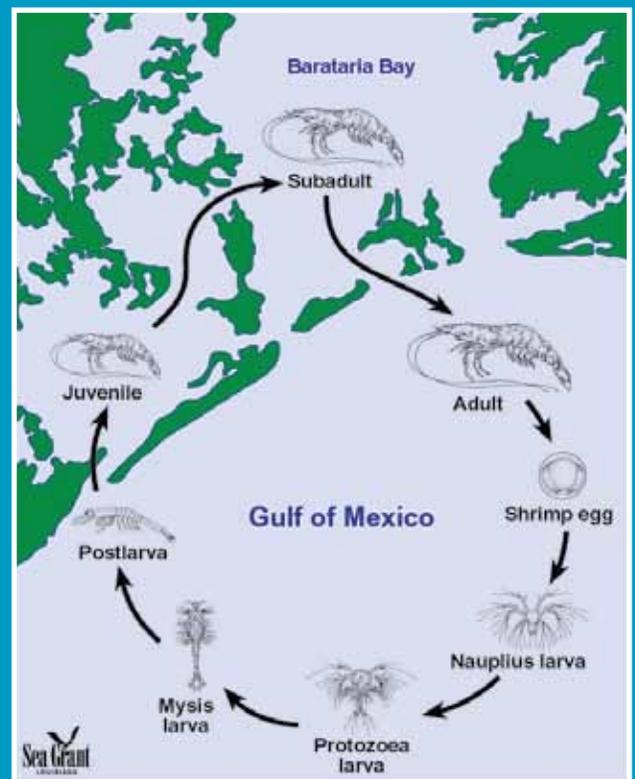
Roundtable to identify innovative and practical measures to improve the fishery. In cooperation with the Roundtable, we are helping to introduce new shrimping gear that not only greatly reduces bycatch, but also improves shrimp quality and saves fuel.

New and improved BRDs designed by shrimpers reduce bycatch by 30 percent by weight—the new legal standard—compared to older BRDs that achieved only about 15 percent reduction. Reducing bycatch also results in higher-quality shrimp, as they aren't crushed in the nets under the weight of other marine life. And shrimpers are benefitting from new, lighter nets and hydrodynamic metal trawl doors that create far less drag in the water, lowering fuel consumption, costs, and CO<sub>2</sub> emissions by thousands of pounds.

### What you can do to help

To learn more and support Ocean Conservancy's work in this area and others, visit [www.oceanconservancy.org](http://www.oceanconservancy.org).

### The Life Cycle of a Shrimp



Both the Gulf and marsh habitat support shrimp as they grow—and shrimp play a big role in these ecosystems, especially as a source of food. Tiny eggs hatch offshore, and as the larvae begin to grow, tides and currents carry them in to inshore waters where they develop adult characteristics including walking and swimming legs. Juveniles and young adults thrive in salt marshes and bays. They return to the Gulf as adults, living 60-500 feet deep and eventually spawning to start the life cycle anew. Diagram courtesy of Louisiana Sea Grant College Program. [www.laseagrant.org](http://www.laseagrant.org)