

Pulling together to heal the ocean

Along the West Coast, the fishing industry has been living through hard times. Working with fishermen, EDF combined catch shares with marine protected areas to help launch a recovery. Now, fish stocks and fishermen's livelihoods are rebounding.



Captain Rob Seitz talks with **Shems Jud** (*right*), our deputy West Coast fisheries director, in the port of Morro Bay, California. Seitz belongs to a new generation of fishermen who fish smarter, not harder.

Rob Seitz was 15 when he first went to sea with his grandfather, longing for halibut at Cook Inlet, Alaska. “Fishing is what I’ve always wanted to do,” he says.

Over the years, Seitz encountered many dangers, like the time he nearly capsized after catching a Navy submarine in his net. But it

wasn’t danger that nearly drove him off the water. In 2002, Seitz, who now operates a trawler out of Morro Bay, California, almost quit in the face of plummeting fish prices and ineffective regulation. The Pacific groundfish catch fell 70% over two decades. “Fishermen were going broke,” he says, “and port facilities were closing.”

On the West Coast—as elsewhere—fishery managers had tried to end overfishing by shortening the season, which only compelled

fishermen to catch as many fish as possible as quickly as possible, even in dangerous weather.

More than ten million pounds of fish were wasted annually, about one-fifth of the catch. Why? Because the rules had the perverse effect of forcing fishermen to throw otherwise marketable fish overboard, dead or dying.

EDF proposed a different approach, called catch shares, where each fisherman is assigned a percentage of a scientifically determined total allowable annual catch. No longer racing against the clock, fishermen can fish when it’s safe and market prices are high.

In 2011, the Pacific Fishery Management Council started a catch share program, which EDF helped design, for 74 bottom-dwelling species known as groundfish. Observers are required on all boats, and if a captain catches



Partnership in action: EDF’s Shems Jud with Rob Seitz on the *South Bay*, Seitz’s 56-foot trawler. West Coast fishermen now can catch fish year-round rather than being limited to a short, dangerous season. The result: growing fish populations and fresher seafood.



“For a long time, I despised environmentalists. But since I got to know EDF, I realized we want the same thing, lots of fish out there and healthy fisheries.”

Captain Rob Seitz
Morro Bay, California, fisherman



Now we're rewarded for good behavior. It's a much better system."

Today, 65% of the fish caught in U.S. waters are under catch share management. EDF is now helping to expand the approach to global fisheries.

Catch shares, says Shems Jud, EDF's deputy West Coast fisheries director, have led to a boom in innovation as fishermen modify their gear to reduce impact on

habitat and form cooperatives to promote conservation. Rather than fighting against marine protected areas, many are now putting this conservation tool into action on their own, without government intervention.

"When you get the incentives right," says Jud, "and unleash fishermen's creativity to solve problems, remarkable things happen."

more than his share, he can buy shares from another boat, ensuring that the total allowable catch is not exceeded. The result: After just one year, the amount of wasted fish has fallen 78%, revenues are up and fish stocks are rebuilding.

"Under the old system, we were basically sharecroppers," Seitz says. "Regulators set rules and we'd figure out how to get around them.

FISHERMEN HATE THROWING AWAY FISH

Under old-style rules, fishermen had to discard too many fish, most of them dead or dying. Now they don't have to. Under catch share programs, supported by EDF, fishermen can fish more selectively so they don't haul in fish they can't keep. Reducing the number of discards helps fish populations recover.

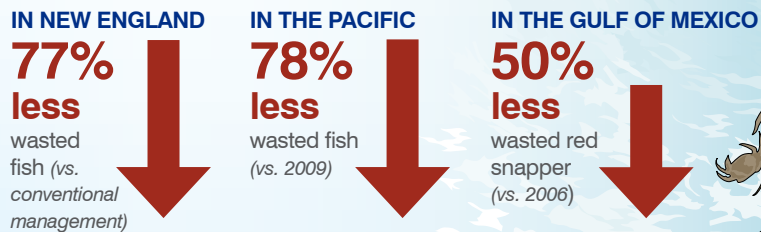


Illustration: Bryon Thompson



OCEANS GOALS

Protect ocean ecosystems by creating sustainable and healthy fisheries

Make catch shares the standard management approach in U.S. fisheries

Expand catch share management to half the world's fish and fisheries

Safeguard and restore ocean habitats



"By giving fishermen around the world a stake in the recovery of fisheries, we can help lift millions of people out of poverty while restoring thriving oceans."

Amanda Leland
VP Oceans



LOCAL ACTION: KEY TO GLOBAL RECOVERY

From Belize to Indonesia, catch share management is helping turn the tide against overfishing by giving fishermen an incentive to conserve.

Overfishing is often associated with factory ships on the open ocean. But nearly half the fish that people eat around the world are caught by some 45 million fishermen operating small boats within a few miles from shore. Many of these small fisheries are unmanaged and in serious trouble.

EDF seeks to help revive the world's small-scale fisheries by empowering fishermen to conserve. In Belize, where lobster and queen conch fisheries are in severe decline, we teamed up with the Wildlife Conservation Society and local partners and introduced catch shares.

Under our program, groups of fishermen are granted exclusive access to fish in a designated area. This secure privilege has given them an

87% of fisheries worldwide are overexploited or fully exploited.

incentive to become better stewards of the fishery. After only a year, illegal fishing is down significantly, and fishermen are asking for bigger marine reserves.

“It may seem paradoxical, but in the long run we can get more fish on our plates by leaving more in the water,” says Dr. Steven Gaines, one of the authors of a new study in *Science*.

The project also is helping to preserve the Mesoamerican reef, the largest barrier reef in the Western Hemisphere. The government of Belize has asked for EDF's help to roll out the system nationwide. “It could be a model for small-scale fisheries reform around the world,” says Scott Edwards, director of EDF's Latin America and Caribbean program.

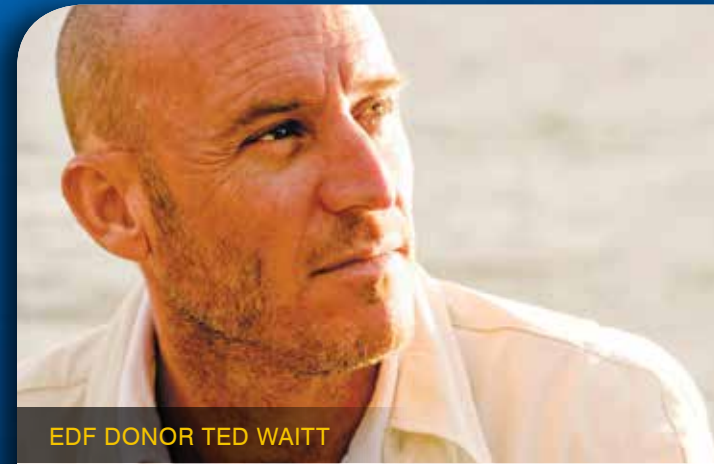
This year we launched a partnership with RARE, a global leader in community-led conservation, and the University of California at Santa Barbara. We aim to tackle near-shore overfishing in developing countries such as Indonesia and the Philippines, two of the world's top fishing nations.

Our initiative, called Fish Forever, will use social marketing to engage local fishermen in a program combining catch share management with marine reserves. The goal: sustainable fisheries that benefit the millions of people who rely on fish for food.

SAVING THE GREAT PREDATORS OF THE SEA

Sharks have ruled the oceans for millions of years. Today, they're in serious decline. Working with Mote Marine Laboratory and others, EDF is leading an effort to save sharks in the Gulf of Mexico—bringing together Cuba, Mexico and the United States in an unprecedented conservation

partnership. We are conducting the first-ever in-depth survey of sharks along Cuba's northwest coast and Mexico's Gulf coast. The research will reveal the special places that warrant protection and could be a model for managing other threatened migratory species such as tuna.



EDF DONOR TED WAITT

A PASSION FOR THE OCEANS

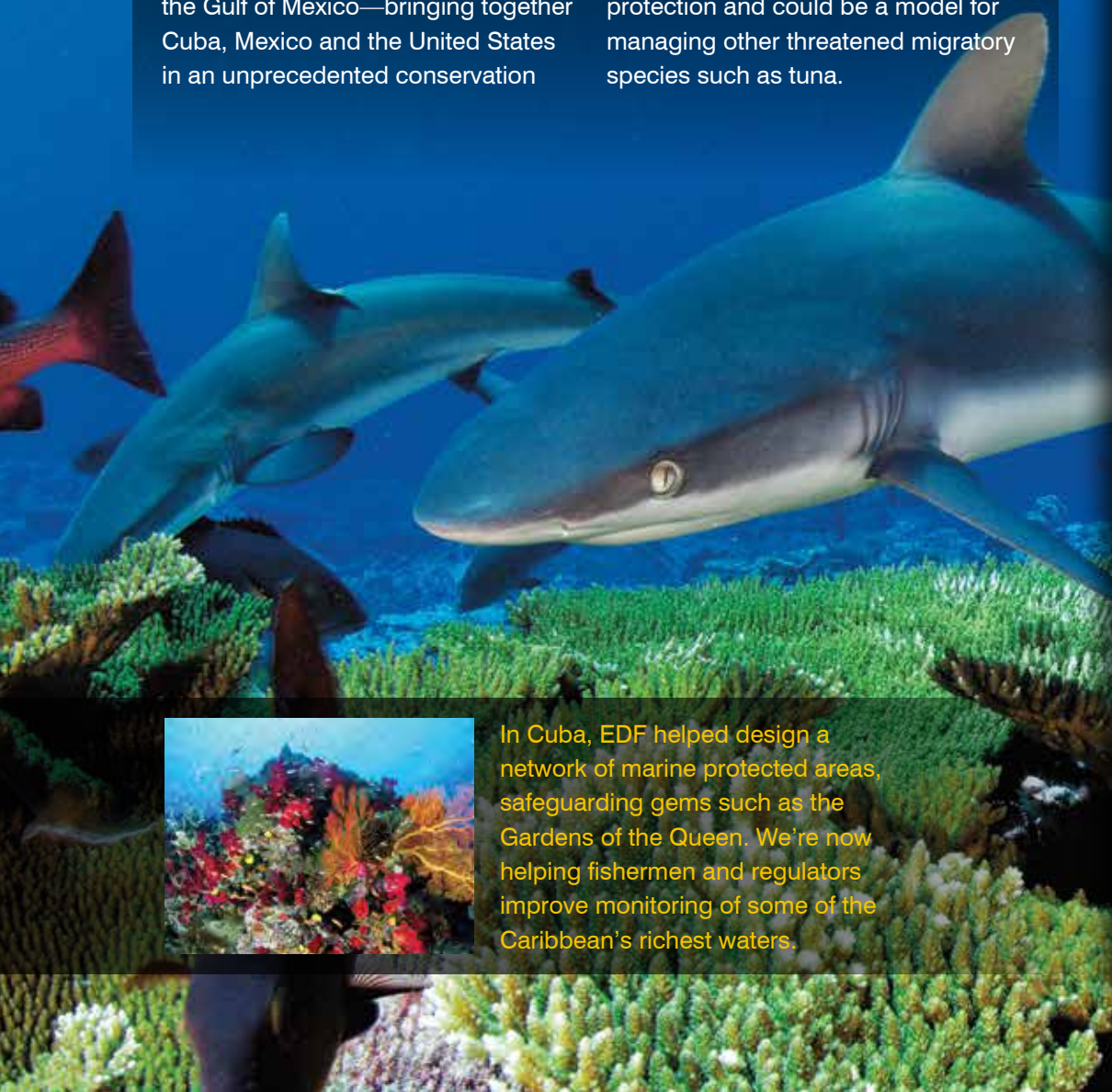
After retiring in 2005 from Gateway, the company he co-founded, computer maverick Ted Waitt followed his next big high-tech dream: exploring deep-sea archeological treasures. Through the Waitt Institute, the research arm of the Waitt Foundation, he helped create the first 3D images of the *Titanic* and has hosted several marine science expeditions.

The more Waitt saw, the more concerned he became about the state of the oceans. "I'd go diving and wonder where all the fish had gone," he says.

Waitt and his team looked to EDF for solutions because "we were impressed with their track record on restoring fisheries through catch shares," he says.

"I like the fact that EDF partners with fishermen and realizes they are just trying to earn a living like everybody else." Waitt adds, "What's unique about EDF is their genuine, pragmatic interest in collaborating with others."

On a trip to Cuba with EDF's Dan Whittle, he was struck by Whittle's deep knowledge of the island and its ecological riches. "We're looking at expanding on past work with EDF to change the way fisheries are managed locally with an eye toward global scale."



In Cuba, EDF helped design a network of marine protected areas, safeguarding gems such as the Gardens of the Queen. We're now helping fishermen and regulators improve monitoring of some of the Caribbean's richest waters.