

We can restore the abundance of the oceans.

From the Gulf of Maine to the Gulf of California, decades of overfishing and faulty management have devastated fish and coastal communities. Now, trailblazing fishermen are embracing a system of market incentives that is restoring fisheries and the towns that depend on them.



United States



Goal: To restore fisheries to abundance, make catch shares the standard approach.

Why: Catch shares empower fishermen to be stewards, boosting profits and fish populations.

Our objectives by 2015:

- 1/ Catch shares are in place for most fish caught in federal waters (*already achieved*).
- 2/ Catch share fisheries are on track to recover.
- 3/ Catch shares are tested for the first time in recreational fisheries.

EDF leadership:

Amanda Leland, VP
John Mimikakis, Associate VP
Heather Paffe, Associate VP

European Union



Goal: Build momentum for the recovery of commercial fisheries.

Why: European fisheries are in the worst condition in the developed world, with more than 75% overfished.

Our objectives by 2015:

- 1/ EU policies and funding encourage rights-based approaches for fisheries.
- 2/ New management is tested with local groups in fisheries in Spain, Sweden and the United Kingdom.

EDF leadership:

Britt Groosman, Program Director, EU

Developing world



Goal: Combine catch shares and marine reserves to protect small-scale fisheries.

Why: Billions of people rely on fish for protein, including from near-shore reefs.

Our objectives by 2015:

- 1/ Fish Forever partnership reaches its first fishing villages in Indonesia and the Philippines.
- 2/ Catch shares are being developed or implemented in at least ten fisheries in Mexico, Belize and Cuba as models for replication throughout Latin America and the developing world.
- 3/ EDF and partners have leveraged the World Bank's financial resources to drive transformation of fisheries in three or more countries.

EDF leadership:

Thomas Grasso, Senior Advisor
Scott Edwards, Senior Director
Pedro Zapata, Mexico Director

Ocean habitat



Goal: Protect and restore ocean habitats.

Why: Marine protected areas complement catch shares by providing a haven for fish populations to rebuild.

Our objectives by 2015:

- 1/ At least 23,000 square miles of key ocean habitat gains full protection (*already achieved*).
- 2/ The use of catch share management is shown to increase fishermen's compliance with marine protected areas.

EDF leadership:

Doug Rader, Chief Oceans Scientist
Rod Fujita, Director of R&D

SHARING THE CATCH IN THE GULF OF MEXICO

At sundown, the 45-foot *Avenger*, a commercial fishing vessel, rolls gently as crew members bait hooks 80 miles off Galveston, Texas. “I’ve been slammin’ fish on and off for ten years,” says Frank, a wiry deckhand with a sprawling treasure map tattoo. “It’s tough work, but you can make good money.”

The bounty has been good recently, thanks to a management program EDF helped implement for Gulf red snapper in 2007.

A decade ago, this fishery was on the brink of collapse. With fish stocks plummeting, regulators cut the season to a few days per month, often in winter when the Gulf was at its roughest.



The shortened seasons hurt fishermen financially and gave rise to dangerous “derbies” in which the fishing boats raced into storms. And the restrictions didn’t solve the overfishing problem.

The short windows also meant too many fish were brought to market at the same time, creating a glut that crashed prices. “My life was a disaster,” recalls Captain Buddy Guindon. “During the derbies, I didn’t go to my kid’s baseball games. I didn’t go to church. I didn’t do all the things normal people do.”

65%

fish caught in U.S. waters
under catch shares

68%

increase in
fleetwide revenue

66%

decrease in waste



EDF proposed a different approach, called catch shares.

Under catch shares, scientists determine the total allowable annual catch for a fishery, and fishermen are assigned a percentage of it, based on their catch history. Now fishermen have a stake in the fishery's recovery: as populations rebound, so does their catch.

We brought fishermen to Washington to build support and helped design a catch share program that was approved overwhelmingly.

“We’re catching bigger fish,” says Guindon. “Our prices at the dock have increased and our costs have gone down.” The program has also helped end overfishing and restore balance to the ecosystem.

The Gulf red snapper population has improved enough to warrant a 70% increase in the allowable catch since 2008. The recovery was so remarkable that in 2013 the Monterey Bay Aquarium took red snapper off the “avoid” list in its seafood guide. For the consumer, this means sustainably caught red snapper all year long.

“Catch shares simply couple responsibilities and rewards,” says our Oceans VP Amanda Leland. “Fishermen are safer, fishing is more profitable, and the oceans are more abundant.”

The success in the Gulf has contributed to the creation of catch share programs for the Pacific Coast and New England. All told, 65% of fish landed by commercial fishermen in U.S. federal waters are now under catch shares management, up from 10% when we started catch shares work in 1996.

“Before catch shares, my sons didn’t have a future as commercial fishermen,” says Guindon. “Now they do.”



“If we protect habitats and offer fishermen a financial stake in the recovery of fisheries, we can revive coastal communities and bring the oceans back to life.”

Amanda Leland, VP Oceans

Buddy Guindon / Part of a revolution in sustainable seafood



“EDF was the first environmental organization I’ve met that shows an interest in what’s good for fishermen.”

For Buddy Guindon, fishing and family are one and the same. He has spent 35 years in Galveston, Texas, on the water and running a fish market alongside his brother, wife and sons. When the BP oil disaster sunk consumer confidence in Gulf seafood, Guindon teamed up with EDF to create Gulf Wild, a system for tagging each fish with a unique number, so customers can go online to see where it was caught. “You should know where your seafood is from,” he says.

The program has taken off. More than 500,000 Gulf Wild fish have been sold in markets and restaurants around the country. The Gulf Wild label is a guarantee of authenticity at a time when as much as a third of the seafood sold in the United States may be mislabeled.

“This is exactly what diners are demanding,” says celebrity chef Rick Moonen, who owns RM Seafood and Rx Boiler Room in Las Vegas. “We want to know that the Gulf fish we’re buying is authentic, safe and from a sustainable fishery. Gulf Wild provides that assurance.”

FROM SEA TO PLATE

Here’s how Gulf Wild brings fresh, local seafood to you:

- 6:50 pm > Captain logs the location of a catch, validating that it was caught sustainably.
- 8:00 am > Vessel returns to port. Snapper are tagged with the Gulf Wild label.
- 9:12 am > Captain checks with chefs to report on the catch and agree on deliveries.
- 9:57 am > Truck departs to make its first delivery to distributors in Houston.
- 11:00 am > Fish is delivered by bicycle to local restaurants in Galveston.
- 12:30 pm > Plate of blackened red snapper is served at Gaido’s Restaurant, Galveston.

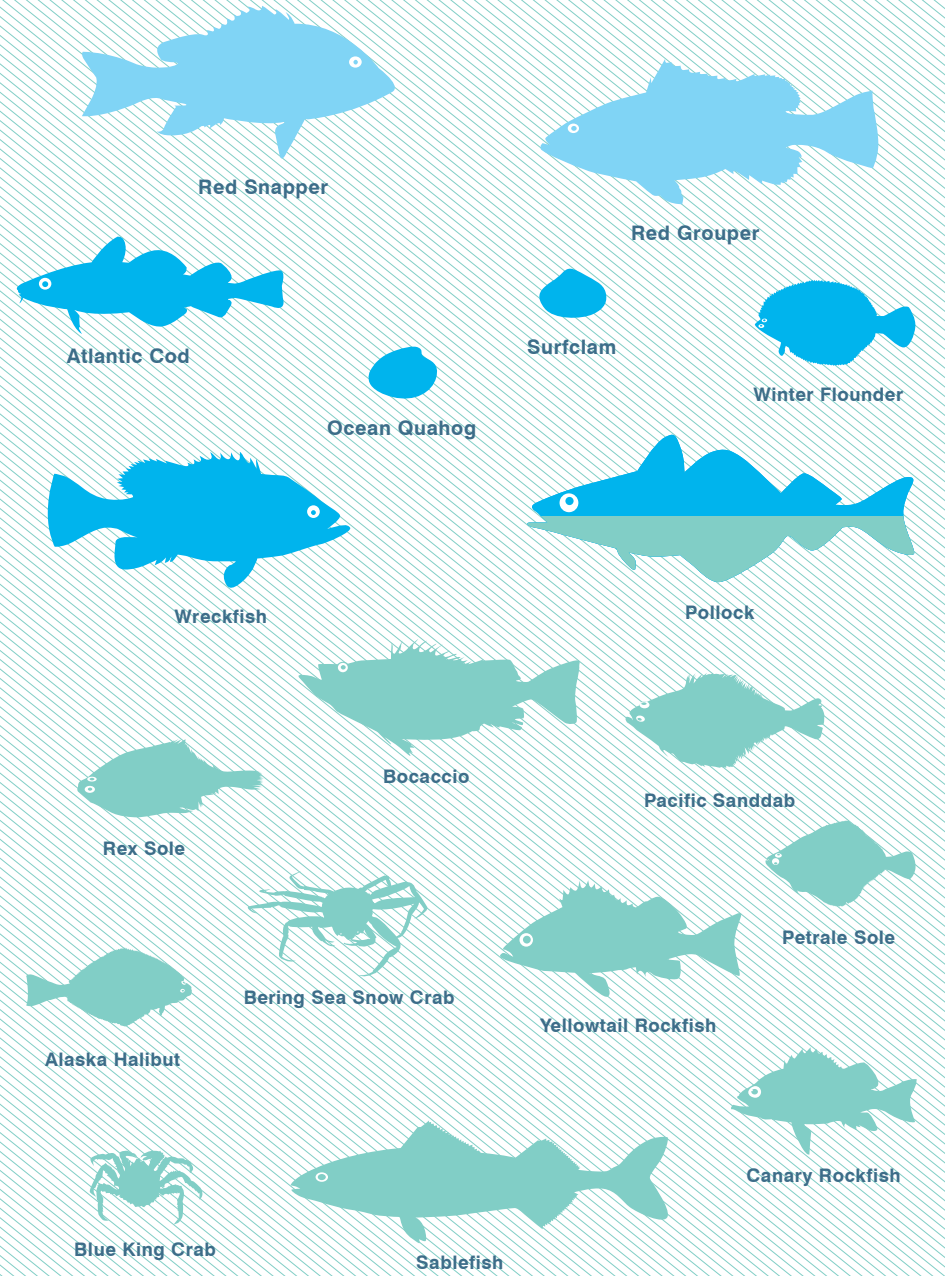
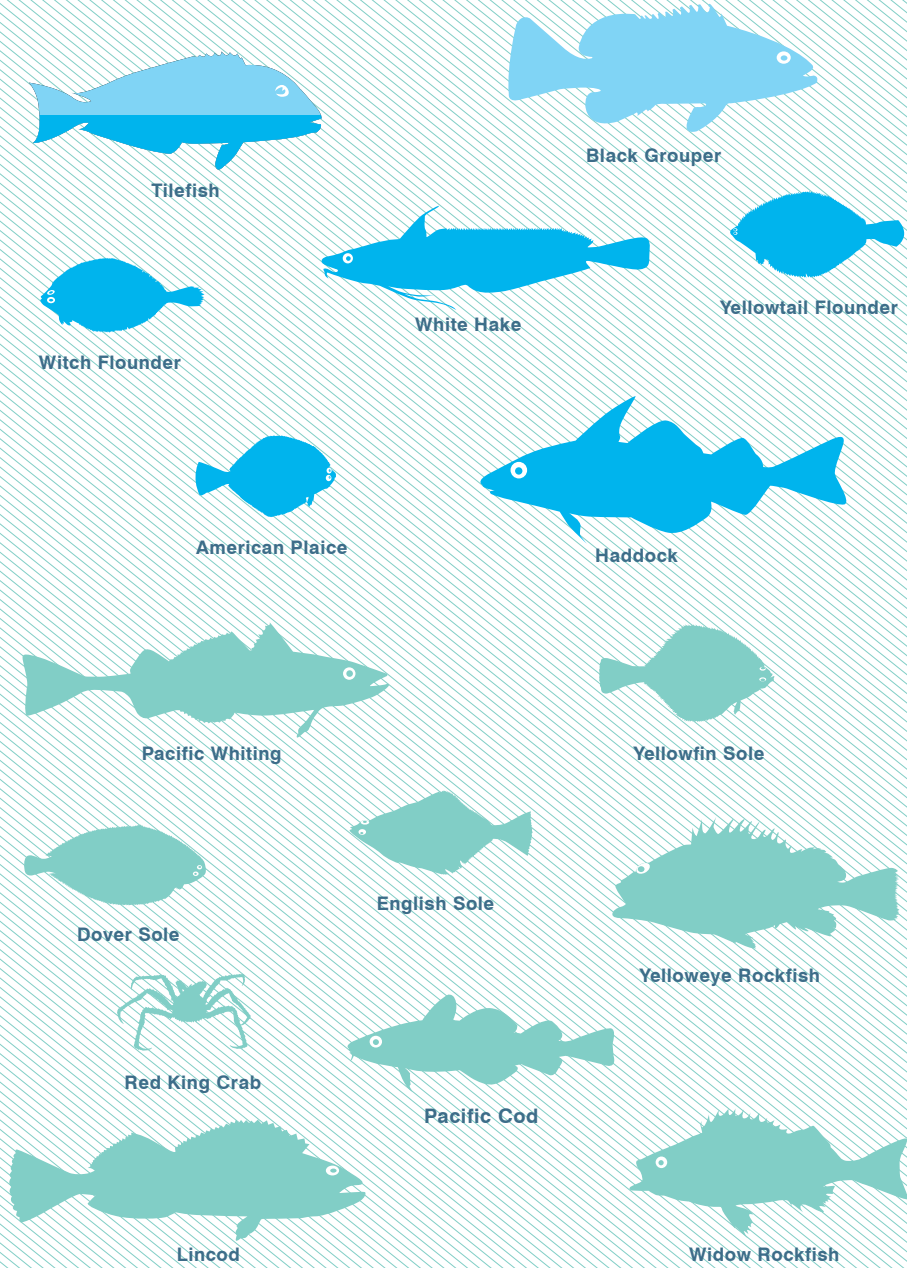


COMMON SEAFOOD UNDER U.S. CATCH SHARE PROGRAMS

Gulf of Mexico

Atlantic Ocean

Pacific Ocean



TURNING THE TIDE IN BELIZE



The Mesoamerican Reef—the largest barrier reef in the Western Hemisphere—hugs the Belize coast and supports 500 species of fish. Many Belizians are dependent on the reef for their survival, but overfishing has taken a toll.

EDF teamed up with the Wildlife Conservation Society and local partners, enlisting fishermen and influential policy makers to preserve this extraordinary reef.

Under our program, local fishermen have exclusive rights to fish in a designated area, which thrives because of a nearby Marine Protected Area. They are required to record their catch, and many are monitoring illegal fishing, a huge problem.

After two years, fishermen themselves are enforcing the rules and illegal fishing is down by more than 60%, allowing them to safely increase their catch. The success has led the government of Belize to ask EDF's help to roll out the system nationwide.

FISH FOREVER



Can 45 million coastal fishermen in the tropics feed local populations while allowing marine ecosystems to flourish?

To tackle the challenge of small coastal fisheries, EDF is collaborating on a global campaign in partnership with the University of California at Santa Barbara (UCSB), which brings expertise in economic assessment, and Rare, a nonprofit that specializes in social marketing for biodiversity conservation.

The partnership, called Fish Forever, will empower small-scale fishermen in developing countries with practical solutions to reverse overfishing. We've begun work in the near-shore fisheries of two leading fishing nations, Indonesia and the Philippines.

“Fish Forever is a unique conservation opportunity where you can manage for local economies while at the same time enhance food security and biodiversity.” Dr. Steven Gaines, *UCSB*

SAVING THE GREAT PREDATORS OF THE SEA

Sharks have roamed the oceans for 400 million years, but that ancient lineage does not guarantee a future. Today they're in serious decline, with millions of sharks killed every year.

“In the Gulf of Mexico populations of some large sharks, including tigers and hammerheads, have fallen by as much as 90%,” says Dr. Douglas Rader, EDF's chief Oceans scientist. As top predators, sharks play a crucial role in the health of marine ecosystems, keeping them in balance.

There's no easy answer to the crisis, because many sharks are highly migratory. They're also a source of food in many nations.

EDF is leading an effort with Mote Marine Laboratory to save sharks in the Gulf of Mexico—bringing together Cuba, Mexico and the United States in a tri-national conservation partnership, the first of its kind anywhere in the world.

We're conducting surveys of sharks along Cuba's northwest coast and Mexico's Gulf coast. “Until now, the scattered research has never been pulled together to build the big picture of Gulf sharks,” says Pam Baker, EDF's Gulf director.

The collaboration will yield the data necessary to build management programs that significantly reduce the killing of sharks. “If successful, the tri-national program for sharks can be a model for management of other highly migratory species like tuna and swordfish,” says Baker.



A SHARED VISION FOR CUBA

For more than a decade, EDF has been working with Cuban scientists on issues ranging from coral reef conservation to sustainable coastal development. With Cuba slowly opening the door to private enterprise, safeguards are critically needed.

EDF helped lay the foundation for a network of Marine Protected Areas and is now working to strengthen protections for the legendary Gardens of the Queen National Marine Park, which teems with giant fish uncommon elsewhere in the Caribbean. We're also partnering with Cuban government officials and fishermen to rebuild important fisheries through the development of community-based fishery cooperatives to achieve our joint economic and conservation goals.

"While politically distant, the U.S. and Cuba are ecologically linked and must collaborate to protect their marine life." Dan Whittle, *Director, EDF Cuba program*



Philip and Alicia Hammarskjold

Making the case for catch shares



"These experiences have given me an appreciation of the ocean's ecosystems and the strains they are under."

Philip Hammarskjold

Philip Hammarskjold and his wife Alicia both spent childhood summers near the ocean—she on Block Island, he on the Jersey shore. At a young age, Hammarskjold developed a passion for the ocean, spending many hours lifeguarding, boating, fishing and scuba diving.

Now CEO of a private equity investment firm, he continues to spend time on the water with family and friends in New England and on family vacations around the world. "These experiences have given me an appreciation of the ocean's ecosystems and the strains they are under," Hammarskjold says.

The couple's love of the ocean led them to support EDF's work on catch shares in New England and, more recently, internationally. "The data show that catch share programs really are effective in driving sustainable fishing," Hammarskjold says.

He recalls a recent EDF event he and Alicia hosted at their Block Island home for friends and neighbors. "EDF staff did a fantastic job making the case for catch shares," he says. "One guest in particular—a catch share skeptic—said to me afterwards, 'Wow, those people really know what they're talking about.'"

A BUSINESS PERSPECTIVE ON CATCH SHARES



“As an investor, I can see why catch shares work. They represent an asset that fishermen want to protect, a long-term stake in their fishery’s recovery.”

Stanley Druckenmiller, *EDF Trustee*