

Finding the ways that work

NORTH AMERICA'S NET GAINS:

New Evidence Confirms that Catch Shares Bring Back Healthy Fisheries and Resilient Economies

Summary findings of Marine Policy: Assessing catch shares' effects evidence from Federal United States and associated British Columbian fisheries.

May 2012 Dietmar Grimm, Ivan Barkhorn, David Festa, Kate Bonzon, Judd Boomhower, Valerie Hovland, Jason Blau

THE TIDE IS TURNING

Bucking global trends, fisheries that have graduated to rights-based management harvest the full range of benefits: longer seasons, lower risks, higher revenues, less waste, and more full-time jobs.

As North America’s fish stocks crashed under the weight of a broken system, innovative fishermen moved toward a real solution that replaced flawed restrictions with proven incentives. Governments set scientific performance targets, then let fishermen choose how to meet these standards in a way that makes sense for their businesses.

In exchange for keeping within allocated limits, fishermen could decide when and how to fish their defined, allocated quota. Under certain programs, they could choose to lease, sell or buy shares of the fishery. ‘**Catch shares**’ describes the diverse portfolio of fishery management options that align the interests of all stakeholders.

Now, more scientific results have come in, backing catch shares across the board. A comprehensive analysis compared the environmental, economic and social performance of this diverse portfolio. The report examined 15 major North American



catch share fisheries before and after they graduated to this scalable, flexible solution.

Net Gains outlines the peer-reviewed study’s findings of when, where, how, why, and for whom catch shares progressively work.

COMPARE THE NUMBERS

	BEFORE: Broken System	AFTER: Catch Shares
 FISHING SEASONS	Shrank 63 days	Expanded to 245 days
 CATCH LIMITS	Exceeded 44% of the time	Complied 94% across 86 seasons
 DISCARDED FISH	Increased 60%	Reduced 31%/60% after 5/10 years
 SAFETY	At risk	Improved 260%
 REVENUES PER VESSEL	Down 6%	Up 90% after 5 years
 EMPLOYMENT IN FULL-TIME EQUIVALENTS	Declined 51%	Rose 2%

Researchers collected data at three stages: five years prior, one year prior, and five years after a fishery graduated to catch shares management.

COAST TO COAST RECOVERY

From the Gulf of Maine to the Gulf of Mexico, and from California's Channel Islands up through British Columbia and Alaska, the analysis looked at all 15 federally managed fisheries under catch shares by 2012. It measured environmental, social and economic performance. All three areas saw improvement.

US and BC Catch Share Fisheries

BSAI Crab: Bering Sea and Aleutian Islands Crab (King and Tanner) Individual Fishing Quota Rationalization/Individual Processor Quota Program

Bering Sea Pollock: Bering Sea Pollock Conservation Cooperative American Fisheries Act Program

Gulf of AK Rockfish: Gulf of Alaska Rockfish Pilot Cooperative Program

AK Halibut and AK Sablefish: Alaska Fixed-gear Commercial Halibut and Sablefish Individual Fishing Quota Program

BC Halibut: British Columbia Groundfish Hook and Line Halibut Fishery

BC Sablefish: British Columbia Groundfish Hook and Line Sablefish Fishery

BC Groundfish: British Columbia Groundfish Trawl Fishery

Pacific Whiting: Pacific Whiting Conservation Cooperative Program

Gulf Red Snapper: Gulf of Mexico Commercial Red Snapper Individual Fishing Quota Program

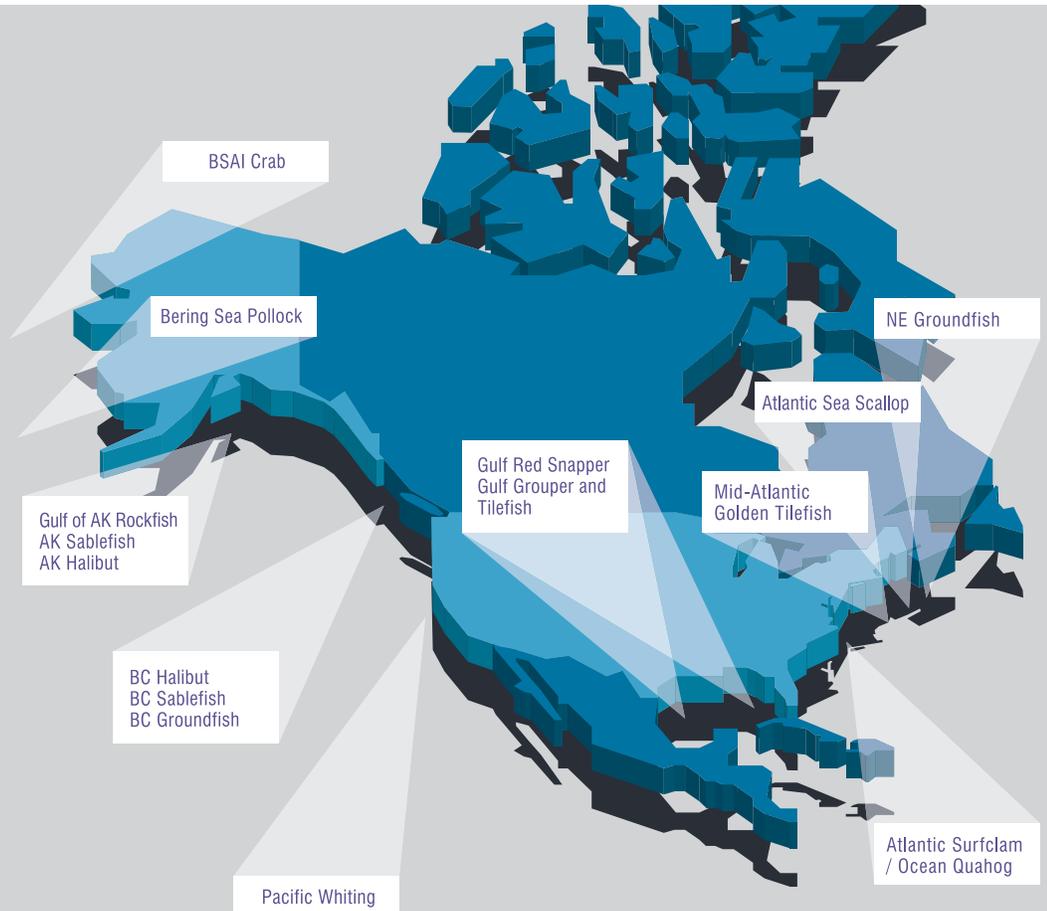
Gulf Grouper and Tilefish: Gulf of Mexico Commercial Grouper and Tilefish Individual Fishing Quota Program

NE Groundfish: Northeast Multispecies Sector Management Program

Atlantic Sea Scallop: Atlantic Sea Scallop Individual Fishing Quota Program - Limited Access General Category

Mid-Atlantic Golden Tilefish: Mid-Atlantic Golden Tilefish Individual Transferable Quota Program

Atlantic Surfclam and Ocean Quahog: Atlantic Surfclam and Ocean Quahog Individual Transferable Quota Program



IN ORDER TO FORM A MORE PERFECT FISHERY

This comprehensive study documents compelling evidence that well-designed catch shares can and do: **replenish fisheries, reduce waste, and provide safer, better paying jobs.**

The analysis even addressed valid concerns. Will catch shares let better capitalized fishermen gain a monopoly? Will small, local, artisanal or recreational fishermen be left out? In response to such questions, the study showed catch shares can flexibly address issues that arise through customized plans. Careful designs prevent ownership concentration through regulatory caps,

or allocate quota directly to communities to ensure their enduring participation.

Because catch shares unite stakeholders within the fishery, all parties are better able and willing to address external threats arising beyond it.



FROM A DESTRUCTIVE ‘RACE TO THE BOTTOM’...

Industrial Age technology fueled the decline of North America’s open access fish stocks. To halt overfishing, in 1976 Congress in passed the Magnuson-Stevens Act that “domesticated” US fisheries and established regulations on fishing. But these well-intentioned laws to save fisheries may have inadvertently accelerated their depletion.

Instead of seeking long-term goals, flawed regulations emphasized short-term methods. They cracked down on: vessel numbers, trip length, boat size, gear type, season duration, or hours logged. By ignoring positive incentives, the top-heavy constraints forced fishermen to fish in derby-style that risked lives, wasted money, sacrificed equipment and degraded the fishery.

Short seasons made fishermen rush to catch – and then throw back, dead or dying – non-target bycatch, accidental sizes or overrun volumes. **Even if sick, injured, or facing foul weather, fishermen all too often had to take chances.**



Worse, when forced to unload all catches at once, even diminished hauls were landed during market gluts that depressed prices and eroded jobs. Many found this broken system to be unacceptable.

Compelling evidence about catch shares has proven it is also *unnecessary*.



“These well-intentioned laws to save fisheries may have inadvertently accelerated their depletion.”

TO A CREATIVE ‘ASCENT TO THE TOP.’

Catch shares align the interests of fishermen with the integrity of their fishery. When fishermen gain a secure share of fish, it changes their incentives and methods and encourages them to maximize its value by protecting and **restoring fish populations**. Communities may for centuries have practiced this durable form of bottom-up fisheries management. But all too often these informal systems were uprooted by outside political, commercial and technological pressures.

Custom-designed catch share solutions combine ancient local wisdom with modern science and formally enshrined legal recognition. They balance ecologically sound catch limits with exclusive, secure privileges for fishermen. They offer fishermen more flexible autonomy in exchange for more transparent accountability.

Does this social contract work? Can a portfolio of catch shares deliver results? Has it brought about more abundant and profitable fisheries?

The recent *Marine Policy* paper answered these questions with authority in a comprehensive

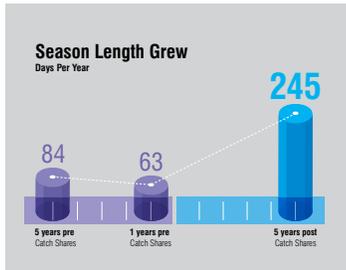
study. The peer-reviewed analysis – *Assessing Catch Shares’ Effects: Evidence from Federal U.S. and Associated British Columbia Fisheries* – documented where, how and why a portfolio of **15 broken fisheries bounced back** upon adoption of a more **ecologically durable**, and **economically valuable, approach**.



“Custom-designed catch share solutions balance ecologically sound catch limits with exclusive, secure privileges for fishermen.”



EVIDENCE THAT FISHERIES IMPROVE UNDER CATCH SHARES



OPENING UP CHOICES

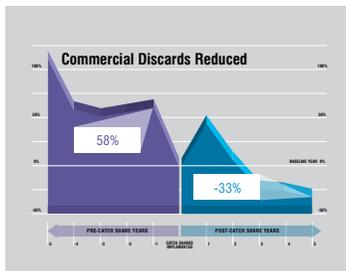
To reduce pressure, the broken system compressed average seasons to 63 days. With secure quotas of fish at sea, catch shares give fishermen freedom to choose the best days to harvest.

In the first five years under catch shares, **average fishing seasons increased to 245 days**

BUILDING ON TRUST

The flawed system pitted fishermen against government officials in a vicious cycle of mutual suspicion. Catch shares align the interests of both sides with secure and accountable quotas encouraging all parties to monitor pressure, share data and explore innovations.

In near total compliance, **catch share fisheries exceeded limits only five times across 86 seasons**



ENDING HASTE AND WASTE

Under the broken system, regulatory restrictions drove commercial boats to dump excess seafood overboard. By encouraging careful fishing, catch shares dramatically reduced discards.

Within ten years, **Alaskan pollock, sablefish and halibut fisheries reduced discards by 50-65%**

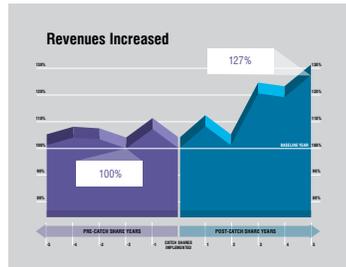
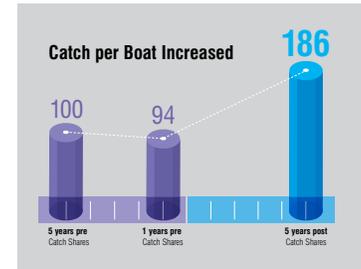


As North America's fish stocks crashed under the weight of a broken system, innovative fishermen moved toward a real solution that replaced flawed restrictions with proven incentives.

GROWING THE PIE

With long-term incentives for efficiency and care, catch shares help each fishery recover. As it grows resilient, catch limits can also steadily increase, ensuring everyone's 'pie slice' gets bigger.

Under catch shares, **limits rose 13% after five years, and 19% after ten years**



BANKING ON FISH

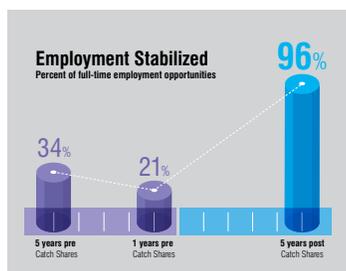
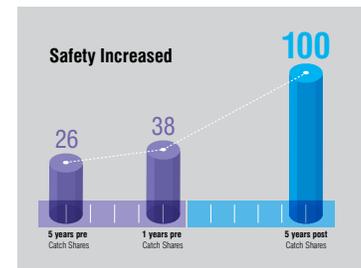
The old system shrank fisheries' size, efficiency and value. Catch shares reverse that. Flexibility boosts revenues and reduces waste and fuel costs. It widens profit margins, provides longer seasons, avoids market gluts and delivers a fresher product bringing higher prices ashore.

Under catch shares, **fleet-wide revenues increased 27% after five years, and 68% after ten**

AVOIDING NEEDLESS RISKS

It remains a dangerous profession. But catch shares let captains choose when to fish. Now they have time to make repairs. Crews can take breaks during storms, and save trips for fair weather.

Fishing safety tripled; search and rescue missions decreased from 33 per year to 10 under catch shares in the Alaska halibut fishery



SECURING GOOD JOBS

Under the broken regulatory system, total employment declined 51%. Now that boats aren't forced to race the clock and hire short-term and part-time crews, longer seasons allow opportunities for full-time employment to quadruple, often with better paying jobs.

Under catch shares, **crew wages in the Alaska crab fishery increased 66%**

WHERE DO WE GROW FROM HERE?

The comprehensive analysis offers empirical proof of successful transitions to a formal catch shares program – some of which have been in place for decades. Yet each day informs the next, as fishermen learn from past experience, and from each other. The study shows that fishermen and managers are continually seeking collaborative innovations and finding new ways to increase vessel yields, grow revenues, and encourage long-term stock increases.

Debate is healthy, and welcome. If a better, faster, or more equitable and efficient way to recover

fisheries exists, let's compare and learn from all options. Until then, however, it is time to let fisheries recover their vigor, and **allow fishing communities to grow their jobs and regain their resilience.**

To see how the net gains of catch shares could improve your fishery, read the full study at: www.edf.org/AssessingCatchSharesEffects

Or contact the experts by going to: www.edf.org/oceans/catch-shares



Environmental Defense Fund
257 Park Avenue South, New York, NY 10010
www.edf.org | (800) 684-3312

© 2012 Environmental Defense Fund.
All rights reserved.

Photo credit: John Rae