

Evidence that Catch Shares Provide Ecological Benefits

Catch Shares Address Overfishing

- Catch shares prevent, and even reverse, fisheries collapse. A [2008 study](#) published in *Science*, examined the fate of more than 11,000 fisheries around the world, and found that catch share fisheries remain stable in the long term.
- "[Charting a Course to Sustainable Fisheries](#)," released by California Environmental Associates in September 2012, includes evidence that catch shares are among the approaches that have proven to be effective at addressing overfishing. A peer-reviewed, landmark 2012 *Science* magazine [study](#) was part of the report, which shed light on the status of the world's numerous data-poor fisheries. While the scientists found that many fisheries are facing collapse, they also said it's not too late to turn things around.
- [Another review of existing studies](#) also finds that catch shares encourage stewardship, as well as a slower pace of fishing and cooperation. Catch shares "can realign fundamental incentives and thereby help to address the immediate threat of overfishing... IFQs create a management environment in which all stakeholders, including fishers, managers, scientists, and the public, have long-term interests in mind." There are examples of catch share fishermen advocating for lower catch limits and funding research into the status of fish stocks. Fishermen in British Columbia's groundfish catch share have insisted on better monitoring and have provided funding for it themselves, illustrating their stake in better compliance with fishing limits.
- "The New Zealand Ministry of Fisheries (2002) reports that 80% of the stocks initially placed under IFQ management for which information is available are above sustainable levels. In fact, between 1994 and 2002, the percentage of stocks above target levels grew by 67% (New Zealand Ministry of Fisheries 2002)." (From [Griffith 2008](#)).
- In 2011 seafood landings in US federal waters hit a [17-year high and values have increased](#). Approximately 65% of seafood caught in federal waters is in catch share programs.

Fishermen Stay within Fishing Limits and Can Catch More as Overfishing Ends

- [A 2012 study](#) published in Marine Policy found that 15 North American Fisheries that switched to catch shares exceeded catch limits 44 percent of the time before the switch, and rarely after. Some other highlights from the study can be viewed [here](#).
- [The same study](#) showed that catch limits actually *increased* 13% after five years and 19% after ten years of catch share management. Commercial fishermen voted to switch to catch shares in the Gulf red snapper fishery in 2007. Since then, there's been near 100% compliance with catch limits, which has helped the red snapper population rebound. As a result, the catch limit has increased three years in a row (Source: [NOAA 2012](#) and [NOAA report on the 2011 fishing year](#)). The season is year-round, compared to [as low as just 52 days before](#).

Fish is Less Likely to be Tossed Overboard and Wasted

- The amount of fish tossed overboard decreases dramatically under catch shares. Fishermen have the time and incentive to fish more selectively, therefore, avoiding catching the wrong species. [The 2012 study in Marine Policy](#) of 15 North American catch shares found that after switching to catch shares, the amount of fish that had to be tossed overboard dropped a whopping 66 percent. Alaskan Pollock, sablefish and halibut fisheries saw discards decline by 50-65% within ten years of catch share management.
- Alaska Pollock catch share fishermen participate in a cooperative and create voluntary no-take zones to avoid high salmon bycatch rates. They also share real-time warnings to others in the fleet when they discover hotspots for salmon ([Griffith 2008](#)).
- Discards were cut by two-thirds from 2009-2011 in the New England groundfish fishery, due to catch share management.
- Catch share fishermen in the Gulf of Mexico reduced discards of gag grouper by [9% in 2010, the first year in catch share management](#).
- In the US Pacific Groundfish Trawl fishery, catch share fishermen in the shoreside non-whiting fishery increased retention rates of groundfish stocks [from an average of 82%](#) in the five years prior to catch shares to [95% in the first year of the program](#)

“Ghost Fishing” is Reduced

- [A review of previous research](#) found several environmental benefits of catch shares when the catch limits are set at sustainable levels and are enforced. The benefits include increased compliance with catch limits and reduced mortality from “ghost fishing” (the fish that die in lost or tangled gear). Negative impacts can typically be avoided through careful design of catch share programs.
- In the Alaska halibut fishery, “ghost fishing was reduced by 80% in the first year under catch shares from 1,289,000 pounds in 1994 to 257,000 pounds in 1995. With more time, fishermen could recover tangled gear rather than cutting it loose ([Griffith, 2008](#) from [Gilroy, 2004](#)).

Catch Shares Stabilize Landings and Exploitation Rates

- Catch shares improve a fishery’s predictability by stabilizing landings and exploitation rates ([Essington, 2010](#) and [Essington et. al, 2012](#)). These factors make fishery management more certain and improve the ability of fishermen to plan their businesses. The studies found no consistent change in biomass levels after the switch to catch shares, which could result from several factors (short time under catch shares, the presence of other fish fleets not under catch shares, and environmental factors that may affect fish population levels more than fishing impacts, such as oceanographic conditions, coastal pollution, etc.). “When management targets were specified, exploitation rates were always below the target levels following catch share implementation, and population biomass tended to move toward target level” (Essington, 2010).