



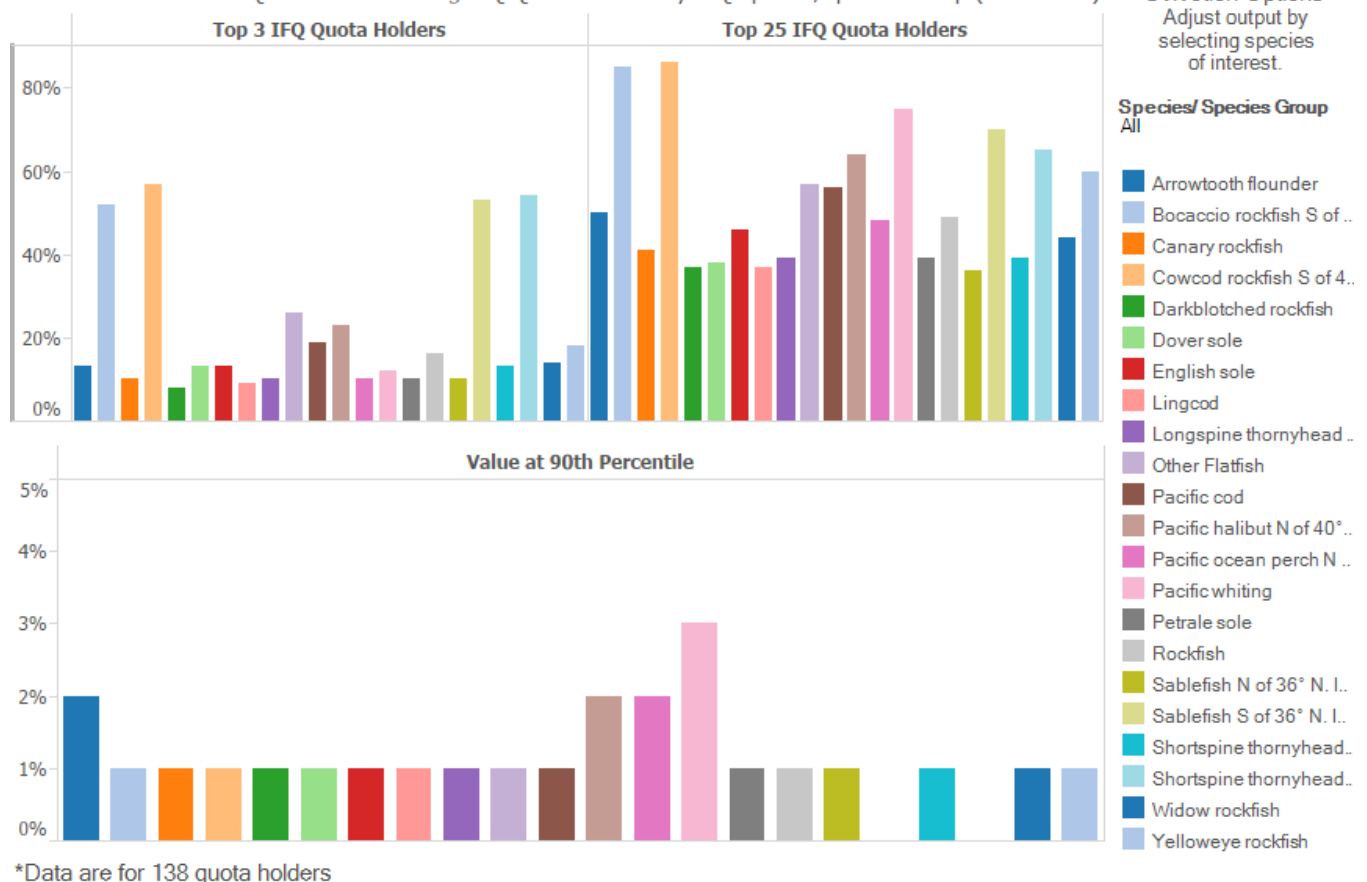
## West Coast Groundfish Interim Findings: Economic Indicators

Version: September 2013

### Access and Exclusion Effects

This indicator measures access to and exclusion from catch shares and fishing opportunities and how evenly catch shares are distributed among the fleet ([Access and Exclusion Effects: Introduction](#)).

Percent Distribution of Quota Shares among IFQ Quota Holders by IFQ Species/Species Group (2011-2012)



Additional charts provided below. The images in this downloadable fact sheet may not show all the components within each indicator. To work with an interactive display of the data underlying this indicator, go to:

<http://catchshareindicators.org/indicators/westcoast/west-coast-access-and-exclusion-effects/>

## Overview

Prior to implementation of the Shorebased IFQ Program, access to the groundfish fishery tightened with implementation of the limited entry program and subsequent vessel and permit buybacks. When the Shorebased IFQ Program was established, however, additional potential participants were excluded because they had too little history to make fishing economical. During the first two years of the catch share program, a majority of [quota shares](#) (QS) for several IFQ species was concentrated among the top 25 quota holders. With the ability to transfer [quota pounds](#) (QP) during the fishing season to cover catches, fishing opportunities will continue to change. Further adjustments are expected as overfished species rebuild, making shares of those species less exclusive, and as shares become transferable in 2014.

## Baseline Period

Implementation of the 1994 federal license limitation program constrained access to the groundfish fishery by restricting vessel participation in the directed commercial groundfish fisheries off the coasts of California, Oregon, and Washington. The federal license limitation program was the primary means of limiting access during the baseline period (2002–2010), and many of the elements of the program continue to be required in the Shorebased IFQ Program.

Pacific Coast groundfish limited entry permits not only restricted the number of vessels that could participate in the groundfish fishery, they also carried maximum vessel length limits and were gear specific. For instance, a trawl endorsement was required to participate in the non-whiting and Pacific whiting trawl fisheries. Limited entry permits had to be renewed annually and were transferable for use on any vessel within the length restriction. During the baseline period, access to the trawl fishery was further tightened via the limited entry permit and vessel buyback program in 2003 ([Management Framework](#)).

Access to groundfish during the baseline period was also limited by bimonthly cumulative trip limits, which allowed a permitted vessel to land no more than a pre-determined amount of fish in each two-month period ([Management Framework](#)).

## Catch Share Program

The Shorebased IFQ Program limits participation in the shorebased groundfish trawl fishery to vessels registered to a limited entry permit with a trawl endorsement. QS were initially allocated to 166 limited entry trawl permits. These initial allocations were consolidated into 138 quota share permits/accounts because many of these permits were owned by the same entity.

A permit owner's initial allocation of QS was on a permit's catch history ([Shorebased IFQ Program](#)). The majority of groundfish trawl fishermen have family-run fishing businesses and hold

only a single permit, meaning that each boat represents one or more fishing families. However, permit consolidation occurred during the baseline period as corporate ownership of vessels and permits has been increasing in recent decades. In particular, vertically integrated seafood companies have purchased several limited entry trawl permits over the past several years. As a result of this permit consolidation, a small number of entities acquired significant amounts of QS for target and overfished species. In addition, prior to the implementation of the Shorebased IFQ Program, The Nature Conservancy purchased permits and vessels in an effort to promote more sustainable fishing.

The majority of QS for several IFQ species are concentrated among the top 25 quota holders (*see chart above: Distribution of QS*). Furthermore, the top three quota holders for select species own more than 50 percent of the available shares. The most concentrated species is cowcod south of 40°10' N lat., which is an overfished rockfish undergoing a rebuilding process. Three quota holders control 57 percent of the total QS for this species. The second-most concentrated species is shortspine thornyhead south of 36°N lat., followed by sablefish south of 36°N lat., and bocaccio south of 40°N lat. QS for yelloweye rockfish, another overfished species, is concentrated with 60 percent of the total shares allocated to the top 25 quota holders. It is estimated that the remaining three-quarters of quota holders received an average of five pounds of yelloweye rockfish allocation, which is equivalent to about one fish. The least concentrated QS are for sablefish north of 36° N. lat., with the top 25 quota holders controlling only about 36 percent of the QS and the top three quota holders controlling just 10 percent.

When the catch share program began, transfers of QP between vessels were permissible as a means to address short-term mismatches between catches and allocated shares; QS will not become transferable until January 1, 2014 ([Shorebased IFQ Program](#)).

The total amount of vessel-to-vessel QP transfers was 34 percent lower in 2012 than in 2011, while the actual number of transfers was 18 percent lower (*see chart below: QP Transfers by Species*). However, transfer activity both began earlier in the year and was much more evenly distributed throughout the year in 2012 than in 2011, possibly indicating that fishermen were better able to develop fishing plans early in the year that identified which species they could afford to relinquish. Some vessel-to-vessel QP transfers occurred between vessels that have a common owner, in which case the transfers may not have involved cash compensation.

In 2011, QP of sablefish north of 36° N lat. were the most traded in terms of the number of transfers (equal to almost 2 million pounds). In 2012, however, Pacific whiting QP were the most heavily traded in terms of both number and amount (*see chart below: QP Transfers by Species*). Trades of overfished species QP, such as widow, canary, and darkblotched rockfish, were relatively limited in 2011, and they were more heavily traded in 2012 (*see chart below: Monthly QP Transfers*). This pattern may reflect the uncertainty of fishermen regarding their expected need for

QP of overfished species during the fishing year, and the time it took to establish a market for buying and selling QP. By 2012, a number of brokers offered online auctions for trading of QP. In addition, NMFS began listing the specific QS and QP holdings of each quota holder online, enabling interested parties to search for potential buyers and sellers and allowing trading to occur in near real-time conditions ([Shorebased IFQ Program](#)).

The active QP trading market, together with the formation of risk management agreements (risk pools) whereby groups of fishermen pooled their QP of overfished species, likely led to higher confidence that overfished species QP were available if needed. This factor may account for the gradual increase in landings of high-risk target shelf species, such as chilipepper rockfish ([Groundfish Landings](#)).

Prices for QP vary by species, with QP of overfished stocks selling for a higher price since catch of those species are likely to constrain access to healthy stocks. The high price for pounds of sablefish may have been bid up by limited entry fixed gear fishermen who leased trawl permits in order to acquire and fish QP for sablefish. These fishermen can afford to pay a high price for sablefish QP because sablefish caught by fixed gear generally brings a higher price than trawl-caught sablefish ([Groundfish Revenues](#)). As a result of the high price for sablefish QP, trawlers who found it uneconomical to switch to fixed gear but who needed to buy QP for sablefish to cover incidental catches of that species may have been financially unable to do so, diminishing their ability to harvest their allocations for target species that co-occur with sablefish. Furthermore, there may be a reduced need to purchase costly QP for overfished species due to the selectivity of fixed gear.

In 2014, quota holders will be allowed to transfer shares (except for widow rockfish), subject to accumulation limits and approval by NMFS ([Shorebased IFQ Program](#)). This may result in a redistribution of shares. Furthermore, all quota holders will have until November 30, 2015, to divest themselves of QS in excess of the defined accumulation limits established by the Shorebased IFQ Program. The program rules set these limits on the amount of shares an entity can control, expressed as a percentage of the program's allocation, by species/species group and area. For example, an entity will be limited to a maximum 5.7 percent allocation of yelloweye rockfish.

Lifting the restriction on QS transfers will create opportunities for fishermen who were not allocated quota shares to participate in the Shorebased IFQ Program, although these fishermen may face a barrier to entry from the cost of purchasing shares. Small entities may be particularly disadvantaged to the degree that they may find it more difficult to finance such purchases. Among the goals the PFMC identified for the adaptive management program was the use of reserved non-whiting shares to facilitate new entry into the groundfish trawl fishery ([Shorebased IFQ Program](#)). For example, the PFMC identified, as a potential trailing action, a framework to

allow the establishment and implementation of Community Fishing Associations as part of the program. These entities could facilitate entry into the fishery by leasing shares at below-market rates, thereby leveling the playing field in terms of costs between initial recipients of shares and new entrants.

## Data Gaps and Limitations

The prices of limited entry trawl permits during the baseline years and the Shorebased IFQ Program are currently unavailable. Also unavailable are the prices of transferred QP for IFQ species/species groups because although NMFS allows for reporting of QP prices through its online transfer system, reporting is not required at the individual species level.

## Information Sources

Matson, S. 2012. West Coast Groundfish IFQ Fishery Mid-year Catch Report (January-June) 2012: Emerging Trends. NMFS Northwest Regional Office. Seattle, WA.

Matson, S. 2013. Annual Catch Report for the Pacific Coast Groundfish, Shorebased IFQ Program in 2012. NMFS Northwest Regional Office. Seattle, WA.

National Marine Fisheries Service. 2012. The West Coast groundfish IFQ fishery: Results from the first year of catch shares. NMFS Northwest Regional Office. Seattle, WA.

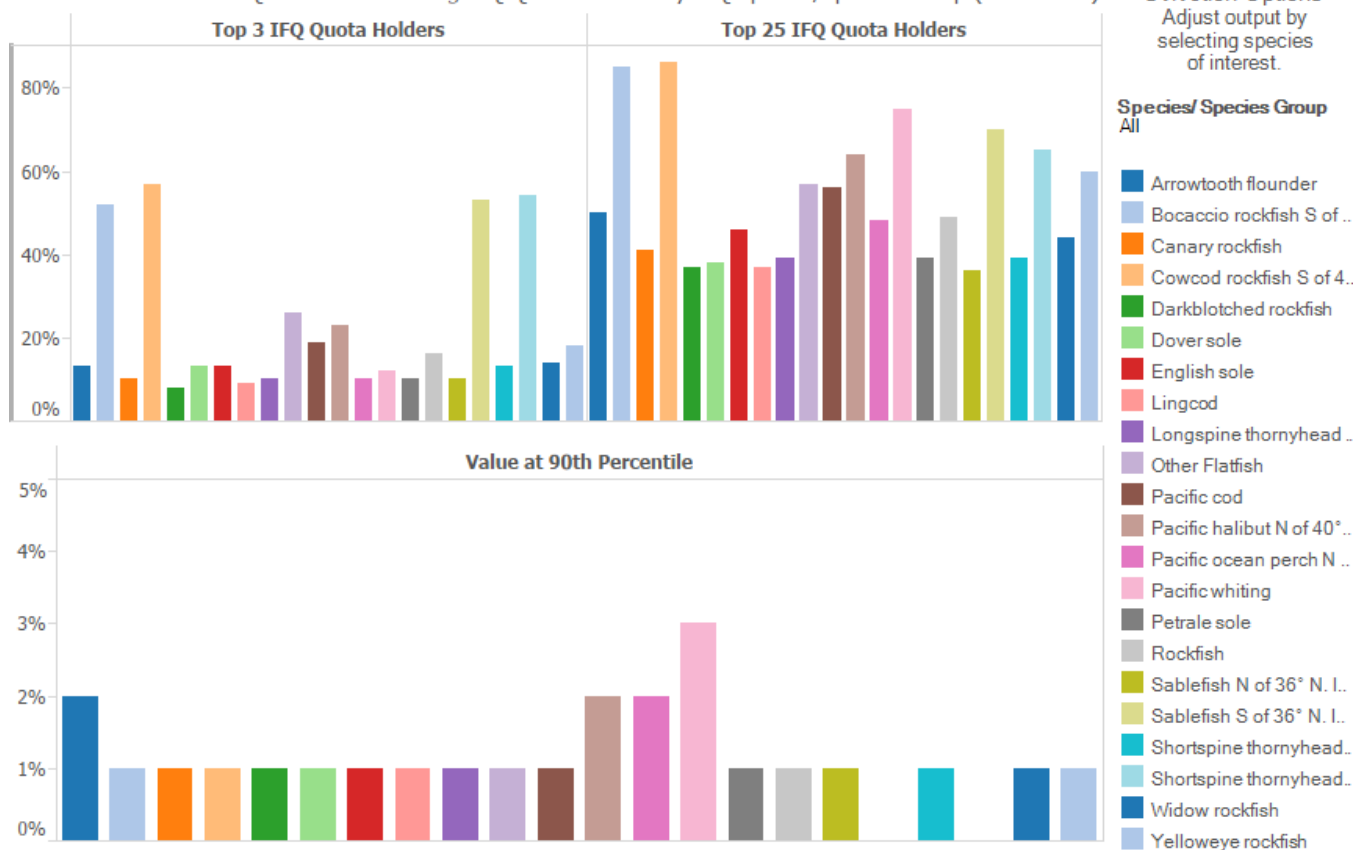
National Marine Fisheries Service. 2013. Pacific Coast Groundfish Individual Fishing Quota. Available online: <https://www.webapps.nwfsc.noaa.gov/ifq/>

Thompson, J. 2012. Emerging Impacts Resulting from the Implementation of the United States Pacific Coast Groundfish Trawl Rationalization Program. MS thesis, Oregon State University. Corvallis, OR.

## Charts

### Quota Pound Transfers by Species

Percent Distribution of Quota Shares among IFQ Quota Holders by IFQ Species/Species Group (2011-2012)



\*Data are for 138 quota holders

## Monthly Quota Pound Species

