

Northwest Region

Two catch share programs have been implemented for Northwest Region fisheries, both of which were developed by the Pacific Fisheries Management Council (PFMC). The Pacific Coast Sablefish Permit Stacking Program was implemented in 2001 while the Pacific Groundfish Trawl Rationalization Program's first year of operation was 2011. Each of these programs were developed to address problems of overcapacity and to improve the economic efficiency of the affected fishing fleets. The Pacific Coast Sablefish Permit Stacking Program allows individual vessel owners to stack up to three individual sablefish endorsed allocation permits onto a single vessel. The program maintains an owner on-board requirement and does not allow transfer of permits to partnerships or corporations. The Pacific Groundfish Rationalization Program is, in effect, two catch share programs: an Individual Fishing Quota (IFQ) for the shoreside trawl fishery and a cooperative management structure for the at-sea Pacific whiting fishery.

In the shoreside trawl IFQ fishery, 138 quota share permits and corresponding online quota share accounts were issued by NOAA Fisheries that allocate percentages of 29 species or species groups to each individual owner. Quota shares were initially allocated to 166 limited entry trawl permit holders (limited entry permits held by catcher processors did not receive quota share) and to 10 shoreside whiting processors. Thirty-six limited entry permits also have Mothership catcher-vessel endorsements and catch history assignments which are used in the Mothership Cooperative fishery. Motherships are large vessels that process whiting at-sea and receive landings from smaller catcher vessels that fish nearby. These initial allocations were consolidated into 138 quota share permits/accounts because many of these permits were owned by the same entity. At the start of the year, when the shoreside trawl IFQ sector allocations for each species are set, NOAA Fisheries allocates the total sector allocation to each quota share owner proportionally by their ownership percentage of each species (as quota pounds). These pounds must be moved to a vessel account in order to be fished.

The at-sea whiting fishery has two components: a mothership and a catcher-processor sector. There are six mothership permits and 37 mothership-catcher-vessel endorsements affixed to limited entry permits that have corresponding catch history assignments (an allocation percentage of the mothership at-sea whiting). At the beginning of each year, the mothership catcher-vessel endorsed limited entry permits obligate their assigned catch history to a mothership permit, and have the option to participate in a cooperative or the non-cooperative fishery. The cooperative structure allows members to decide who goes fishing when and who lands with which mothership vessel. Catcher-processors are large vessels that both catch and process whiting (unlike motherships that do not catch fish). There are ten catcher-processor endorsed limited entry permits and the cooperative structure allows the permit owners to divide the catcher-processor allocations as they see fit.

In this report performance measures are reported for the shorebased IFQ fishery, which comprises the non-whiting trawlers and whiting trawlers. Although many of the same vessels participate in the whiting and non-whiting component of the shoreside fishery, the two are, by and large, distinct fisheries. Thus, for purposes of reporting, the whiting trawl and non-whiting trawl fisheries are reported separately. Performance measures for the at-sea catcher-processor and the mothership cooperatives are not reported.

A snapshot of the performance indicators for the most recent year of available data for each catch share program is reported in Table 5. More detailed descriptions of each catch share program including the management history, program objectives, key events or features, and recent trends in fishery performance are reported in subsequent sections starting with the Northwest sablefish permit stacking program.

Table 5. Northwest Region Fishery Performance Measures by Catch Share Program

	Sablefish Permit Stacking Program (2011)	Groundfish Trawl Rationalization (2011)	
		Whiting Trawl IFQ	Non-Whiting Trawl IFQ
Catch and Landings			
Quota allocated to Program (pounds)	3,522,951	205,778,378	168,978,027
Aggregate landings (pounds)	3,168,586	199,326,215	38,078,027
% Utilization	90%	97%	23%
Total ACL exceeded	N	N	N
Effort			
Entities holding share (number)	114	78	128
Active vessels (number)	100	26	94
Days at Sea (days)	2,583	2,949	4,881
Trips (number)	698	894	1,480
Season length (days)	214	200	355
Revenue*			
Catch Share Program revenue (\$)	12,661,962	21,889,458	30,561,256
Non-Catch Share Program revenue (\$)	524,591	54,781	926,689
Average price (\$/pound)	4.00	0.11	0.80
Catch Share revenue per active vessel (\$)	126,620	841,902	325,120
Non-catch share revenue per vessel (\$)	5,246	2,107	9,858
Catch Share revenue per day at sea (\$)	4,902	7,423	6,261
Non-Catch Share revenue per day at sea (\$)	203	19	190
Catch Share revenue per trip (\$)	18,140	24,485	20,649
Non-Catch Share revenue per trip (\$)	752	61	626
Other			
Excessive share cap	Y		Y
Cost recovery fee collected (\$)	NA		NA

* All revenue and cost recovery values have been adjusted for inflation using the GDP deflator indexed for 2010.

Pacific Coast Sablefish Permit Stacking Program

a. Management History

Sablefish or “Black Cod” is one of many groundfish species managed by the PFMC. Sablefish is a high value species targeted by the limited entry trawl fishery, the limited entry groundfish fixed gear (non-trawl gears which include pots and hook and line) fishery, the open access fixed gear fishery, and the tribal fishery. Limited entry in the West Coast groundfish fishery was established in 1994. The limited entry groundfish trawl and limited entry groundfish fixed gear fisheries receive about 80% of the sablefish allocation on the West Coast. The Pacific Coast Sablefish Permit Stacking Program manages 85% of the sablefish allocated to the limited entry groundfish fixed gear fishery (referred to as the primary sablefish fishery), and the remaining 15% of the sablefish quota allocated to the limited entry groundfish fixed gear fishery is harvested in a daily sablefish fishery which is not managed with a catch share program. As a result, the values provided in this report reflect only sablefish harvested in the primary fishery managed through the permit stacking program and since the Pacific Coast Sablefish Permit Stacking Program was implemented only for the limited entry groundfish fixed gear sector, the discussion focuses on this sector. The Pacific Coast Sablefish Permit Stacking Program covers approximately 30% of all commercially harvested sablefish on the West Coast including tribal fisheries. While any vessel with a limited entry sablefish permit may participate in the daily fishery, only vessels having one or more sablefish endorsed limited entry groundfish fixed gear permits can participate in the primary sablefish fishery (where up to three permits may be “stacked” on one vessel).

At the request of non-trawl industry representatives, the PFMC pursued a mixed seasonal and regional approach to management of the limited entry groundfish fixed gear fishery based on differences in the manner in which the fishery was prosecuted among northern (above 36° N) and southern (below 36° N) fishery participants. The former had traditionally landed the majority of sablefish on directed trips while the latter tended to land sablefish in a daily trip limit fishery. The fixed gear fishery was managed by a quota with separate allocations to the northern and southern fisheries resulting in fishing derbies. The Northern fishery was closed after two to three weeks from 1992-1994, but closed after only five days in 1996. In an attempt to reduce the derby effects, in 1997, vessels were assigned equal harvest limits, effectively an Individual Quota (IQ). However, the Magnuson-Stevens Act moratorium on implementing any individual quota-based programs was still in effect at that time and the PFMC adopted a short season of 10 days. The result was that some vessels were unable to harvest their assigned quota. In 1998, the PFMC modified the program by creating a three-tiered quota assignment, but still set a 10-day season. Permits in each tier (Tier 1, Tier 2, and Tier 3 in order of highest to lowest) were assigned the same quota where eligibility for each tier was based on landings history.

The tiered allocation system meant that some vessel operators had to reduce their fishing activity while others were able to expand. The system provided limited capability for fishing vessel owners to scale their business plans up or down resulting in reduced efficiency. The short season made it difficult to match harvest with market demand resulting in market gluts that lowered product value followed by periods when no product was available at all. The short season was also thought to result in higher accident rates as fishermen had a short window in which to take their allotted quota.

The Magnuson-Stevens Act moratorium on new individual quota programs expired in 2000, but was extended through 2002 via a Congressional appropriations bill, with an exception for a permit stacking program for the fixed gear sablefish fishery. The Permit Stacking Program enabled vessel owners to “stack” up to three sablefish endorsed permits onto a single vessel. In effect, this meant that vessel owners could use the equivalent of three IFQ Program’s allocations with set amounts on one vessel. Perhaps more importantly, the program enabled the season to be extended to seven months (April 1 to October 31). Implementation of the Pacific Coast Sablefish Permit Stacking Program began during 2001 and 2002 was the first year of complete

implementation of the program for the primary sablefish fishery within the limited entry groundfish fixed gear fishery.

b. Objectives

The Pacific Coast Sablefish Permit Stacking Program was developed by the PFMC as Amendment 14 to the Pacific Groundfish Fishery Management Plan. The program objectives included:

- Rationalization of the fixed gear fleet and promote economic efficiency
- Maintain or direct benefits toward fishing communities
- Prevent excessive concentration of harvest privileges and promote equity
- Mitigate the re-allocation effects of previous harvest regulations and prevent future re-allocation problems from emerging
- Promote safety
- Improve product quality and value

c. Key Events/Features

The Pacific Coast Sablefish Permit Stacking Program (Permit Stacking Program) includes a number of features that were designed to meet its objectives. To prevent concentration of harvest privileges, no more than three permits may be stacked onto a single vessel. Furthermore, permits may not be owned by partnerships or corporations. An owner-on-board requirement assures that the fishery retains its traditional owner-operator character.

Although a 12-month season would be feasible, the formal season adopted by the PFMC is seven months running from April to October. Prior to Amendment 14, which established the Permit Stacking Program, the primary sablefish season was set at no more than 10 days. The Amendment lengthened the season to seven months where it remained through 2011. Given that the quota was not exceeded, there were no early closures so the fishery has remained open the full seven months in all years.

Although cost recovery provisions were included in Amendment 14 as approved by the Council, these provisions have not been implemented. Cost recovery regulations are under development at this time.

Time spent fishing is not routinely collected on a trip-by-trip basis, but is estimated using an average on fishing trips that have an observer on-board the vessel. Trip duration has been virtually constant in every year averaging 3.7 days. This means that performance measures based on days at sea are simply scaled by a constant and, therefore, provide no additional information beyond performance measures at a trip level and are not reported herein.

d. Recent Trends

As noted above, the Pacific Coast Sablefish Permit Stacking Program was implemented for part of 2001 and the first full year of data is for 2002. This means that data for 2001 reflects a mixture of pre- and post-catch share activity. For this reason, the pre-catch share Baseline Period includes the years 1998-2000. Unless stated otherwise, all quantities for the catch share fishery are based on sablefish harvested in the primary limited entry groundfish fixed gear fishery. Quantities do not include sablefish harvested in the daily fishery component of the limited entry fixed groundfish gear fishery.

- i. Catch and Landings - All sablefish quantities are reported in whole weight pounds.

Quota allocated to the Pacific Coast Permit Stacking program averaged 4.1 million pounds during the Baseline Period. (Figure 87) In 2002, the first complete year of the Permit Stacking Program, the sablefish quota was set at 2.6 million pounds. The quota increased in both 2003 and 2004,

averaged about 4.5 million pounds in 2005 and 2006, before being reduced to 3.7 million pounds in both 2007 and 2008. The sablefish quota rebounded to 4.6 million pounds in 2010, and was initially set at 3.0 million pounds in 2011. However, a mid-season adjustment to the Tier 1, Tier 2, and Tier 3 individual allocations resulted in an overall quota increase to 3.4 million pounds. Sablefish landings have tracked assigned quota levels without exceeding the quota in any year of the Permit Stacking Program. Quota utilization averaged 83.6% during the Baseline Period. Quota utilization improved to 85% in 2001 but since full implementation of the permit stacking program quota utilization averaged 91.1% since 2002 (Figure 88). However, during the most recent five years utilization has declined to 88.2% of available quota. Note that quota utilization is biased downward because the calculation is based on landings divided by quota where the quota includes total available catch including landings and discards.

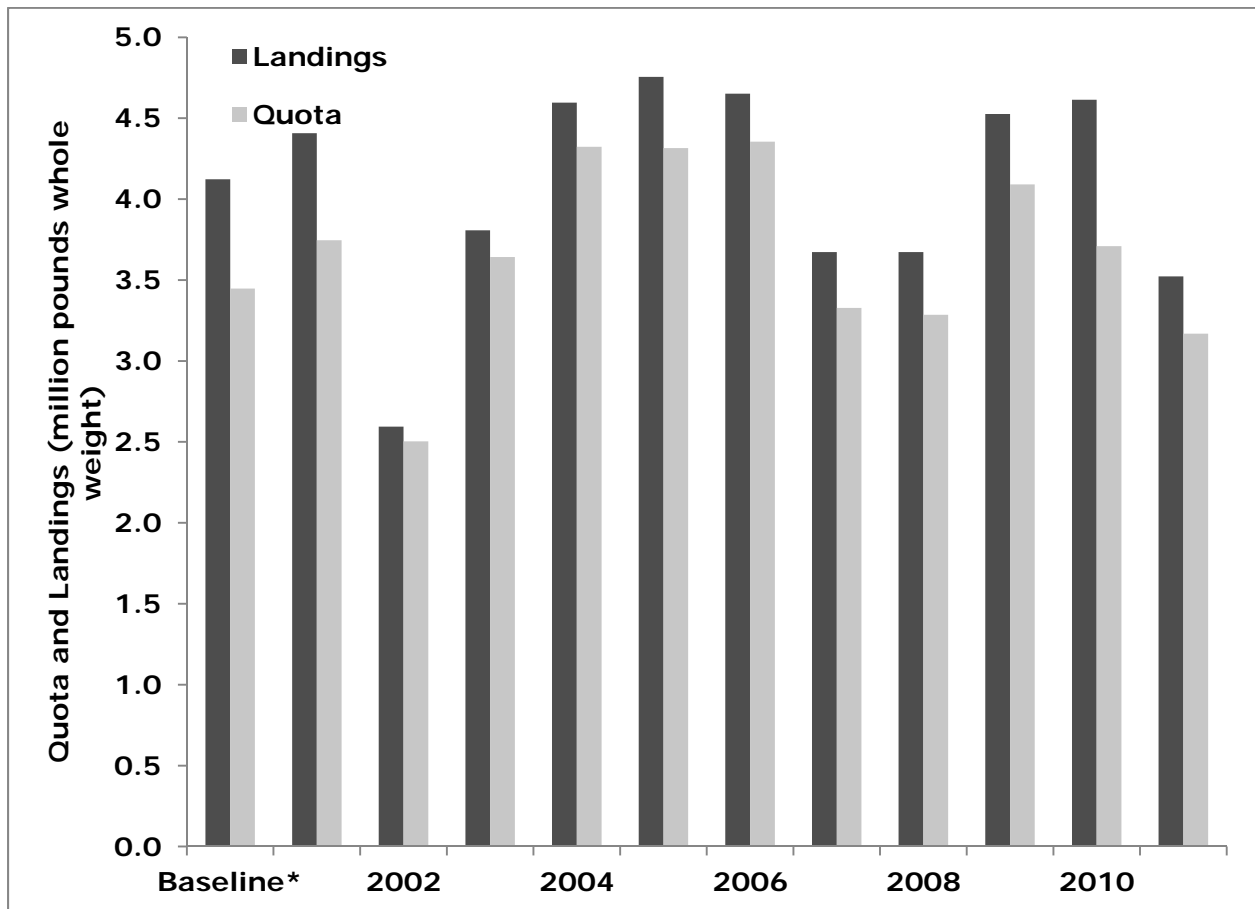


Figure 87. Quota and landings in the Pacific Coast Sablefish Permit Stacking Program

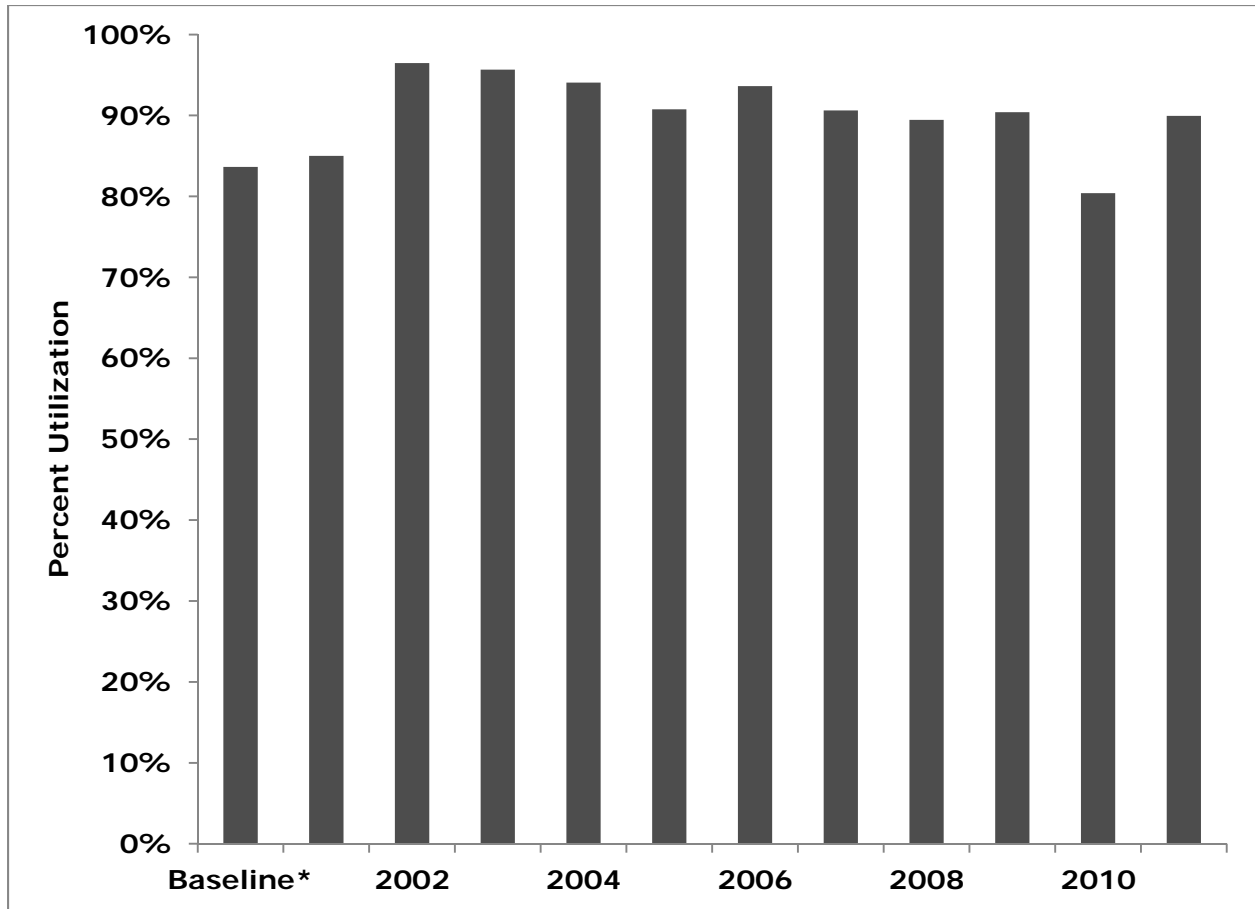


Figure 88. Utilization of available quota in the Pacific Coast Sablefish Permit Stacking Program

ii. Effort

Prior to program implementation there was an average of 154 different owners of a sablefish endorsed limited access fixed gear permit. In the first full year of the Pacific Coast Sablefish Permit Stacking Program, the number of different owners fell to 144 and stayed at that level during 2003 (Figure 89). Since 2003, the number of different owners that were issued a limited access endorsement permit for sablefish declined through 2008 to 113, an average annual rate of 4.3%. The number of unique owners increased to 117 in 2009 and increased again to 124 different owners in 2010. However, the number of entities holding at least one sablefish permit was 114 in 2011.

Of the 154 permit holders that participated in the fishery during the Baseline Period, almost all of them took at least one trip on which sablefish was landed (Figure 89). During the first four years of the Permit Stacking Program, the number of active vessels declined from 101 in 2002 to 80 vessels in 2005. Since 2005, the number of active vessels has been gradually increasing, ranging from 84 vessels in 2008 to 100 vessels in 2011 (Figure 90).

Given the limited season length during the Baseline Period, it comes as no surprise that the number of trips landing sablefish in the primary sablefish fishery increased substantially. On average, vessel owners took 340 trips where primary fishery sablefish were landed during the Baseline Period (Figure 91). With the expanded season, the number of trips taken during 2002,

the first full year of the Permit Stacking Program, increased to 573 and increased again to 621 in 2003. The number of trips declined in consecutive years from 600 trips in 2004 to 469 trips in 2007 before increasing in consecutive years from 2008 to 2011 to a high of 698 trips in 2011.

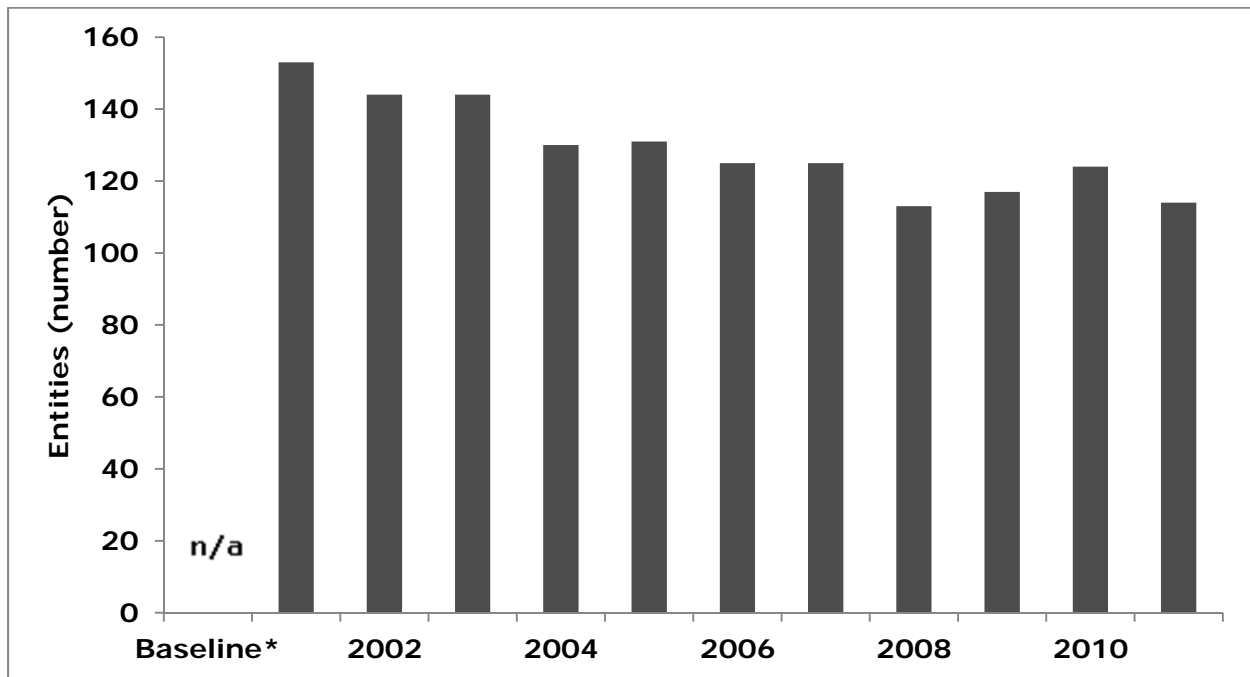


Figure 89. Number of individual limited access sablefish endorsed permit holders in the Pacific Coast Sablefish Permit Stacking Program

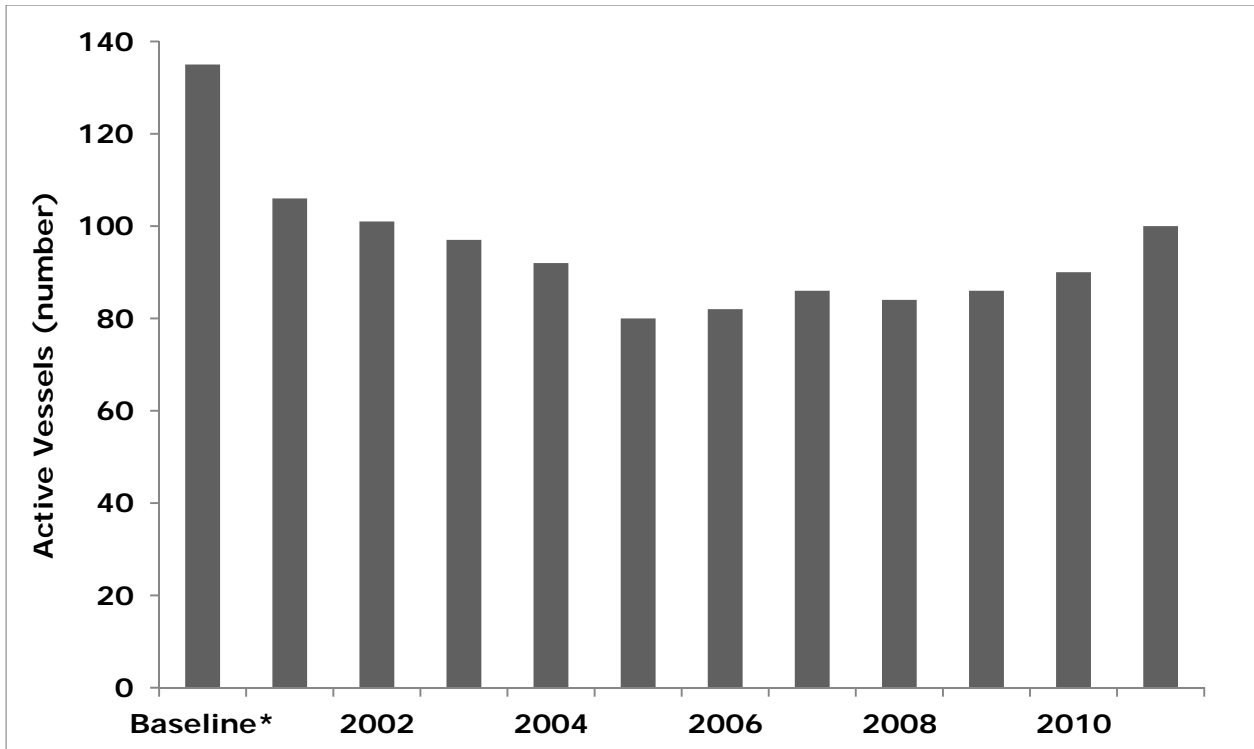


Figure 90. Active vessels fishing quota in the Pacific Coast Sablefish Permit Stacking Program

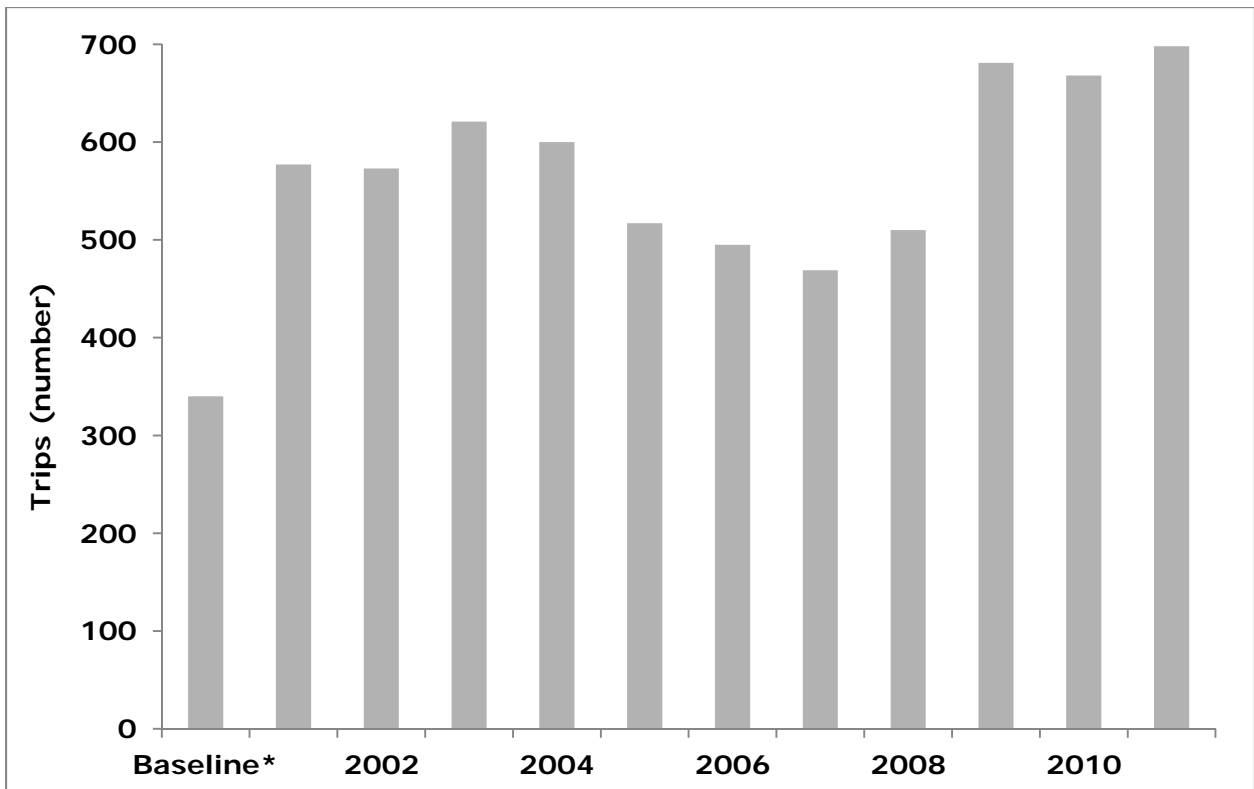


Figure 91. Number of primary fishery trips harvesting Pacific coast sablefish in the Pacific Coast Sablefish Permit Stacking Program

- iii. Revenues – All revenue and cost recovery data have been adjusted by the GDP deflator indexed for 2010.

Annual primary fishery sablefish revenues averaged \$6.4 million during 1998-2000 (Figure 92). Sablefish revenues fell to \$5.3 million in 2002, the first complete year of the Permit Stacking Program, a reduction of nearly 18%. Notably, the reduction in revenue was half that of the reduction in landings, from an average of 3.5 million to 2.5 million pounds, because the sablefish price increased 55% from an average of \$1.86 per pound during 1998-2000 to \$2.11 in 2002 (Figure 93). This higher price was made possible as the catch share program allowed harvested supplies to be better aligned with market conditions. (West Coast sablefish is mainly exported to Japan and prices are largely determined by the Japanese market.) Since 2002, gross revenues from sablefish have been trending upward at an average annual rate of 12% and were \$12.7 million in 2011. Similarly, average prices have been trending upward particularly since 2004 at an average rate of 8.2%, reaching a high of \$4.00 in 2011.

Sablefish is typically the primary target species in the primary fishery on a substantial number of trips. However, some trip revenue comes from other species that are also caught and sold on trips where sablefish are landed. During the Baseline Period, just over 1% of total revenue on trips in the primary fishery where sablefish were landed came from other species. This reliance on other species for trip revenues increased to 7.9% in the first full year of the Permit Stacking Program and averaged 7.2% of primary fishery total revenue from 2003 to 2008. More recently, other species revenue has averaged 3.4% and was 4% in 2011. Total revenue from all species averaged \$6.5 million during the 1998-2000 Baseline Period (Figure 92). Since the Permit Stacking Program was implemented, total revenue exceeded that of the Baseline Period in all years except 2002. In 2011, total revenue from all species on trips landing sablefish was \$13.2 million, twice that of total revenue during the Baseline Period.

Total revenue per vessel on trips where at least one pound of primary fishery sablefish was landed averaged \$48,253 during the Baseline Period. On these trips, \$47,603 was from primary sablefish and \$650 was from other species (Figure 94). Total revenue per vessel increased to \$56,845 in the first full year of the Program and has been on a general upward trend ever since. Total revenue per vessel increased in consecutive years from 2002 to 2006 before falling to \$95,768 in 2007, still twice as high compared to the 1998-2000 average. More recently, revenue per vessel has increased in three of four years to \$131,866 in 2011, even as the number of active vessels has increased. This means that gross revenue has increased proportionally more than the change in the number of vessels participating in the fishery.

Due to the low number of trips taken during the Baseline Period, on average, total revenue per trip was higher during 1998-2000 at \$19,159 per trip than any other year with the exception of 2006 (Figure 95). However, in the first four years of the Permit Stacking Program, combined sablefish and other species revenue per trip increased in consecutive years, peaking in 2006 at approximately \$21,000. Since 2007, revenue per trip declined but has averaged \$17,645 without trend from 2007 to 2011.

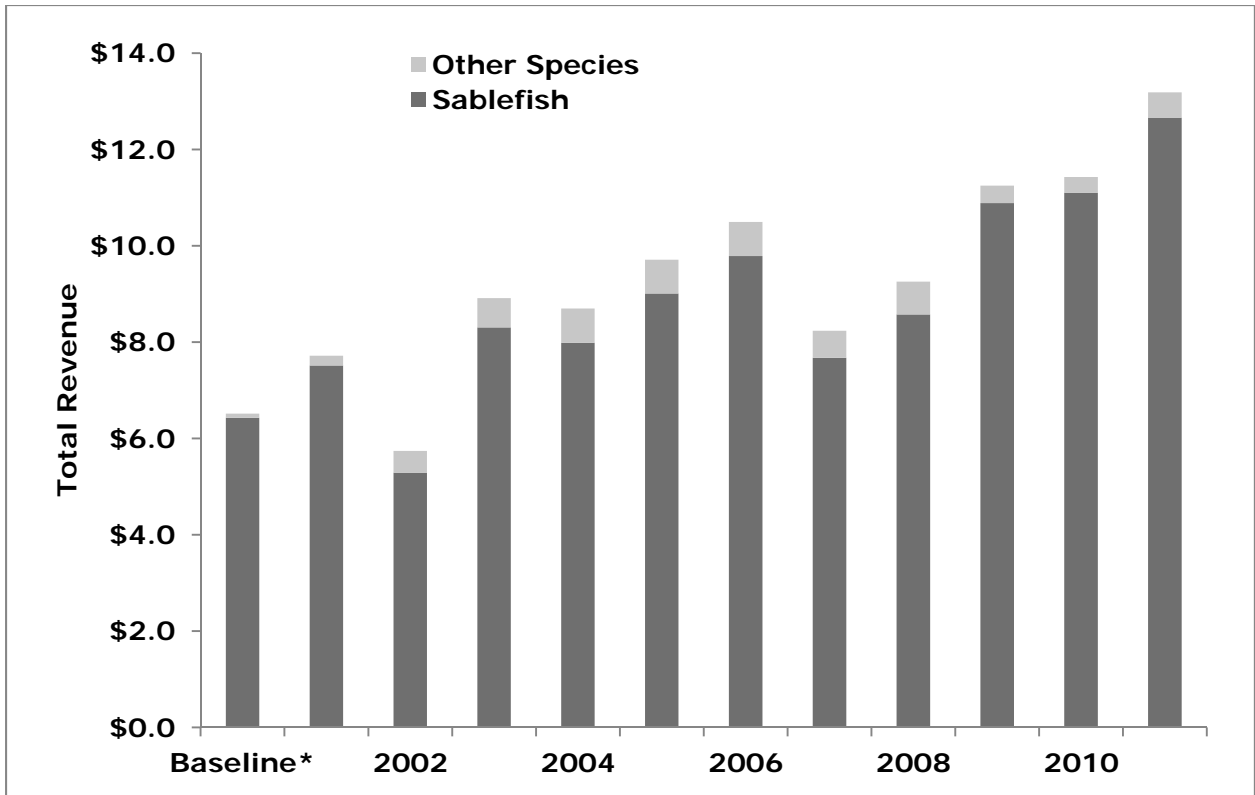


Figure 92. Total sablefish and non-sablefish revenue (inflation-adjusted 2010 dollars) by vessels fishing quota in the Pacific Coast Sablefish Permit Stacking Program

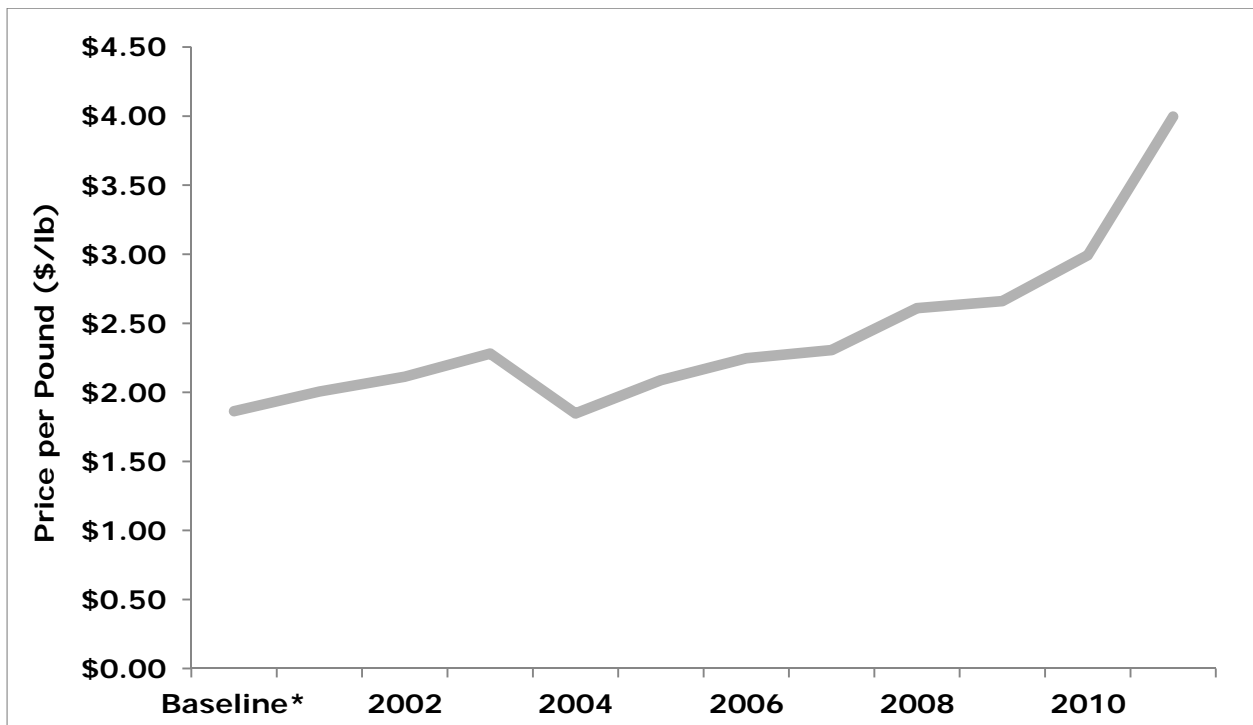


Figure 93. Average Pacific Coast sablefish price per pound (inflation-adjusted 2010 dollars) in the Pacific Coast Sablefish Permit Stacking Program

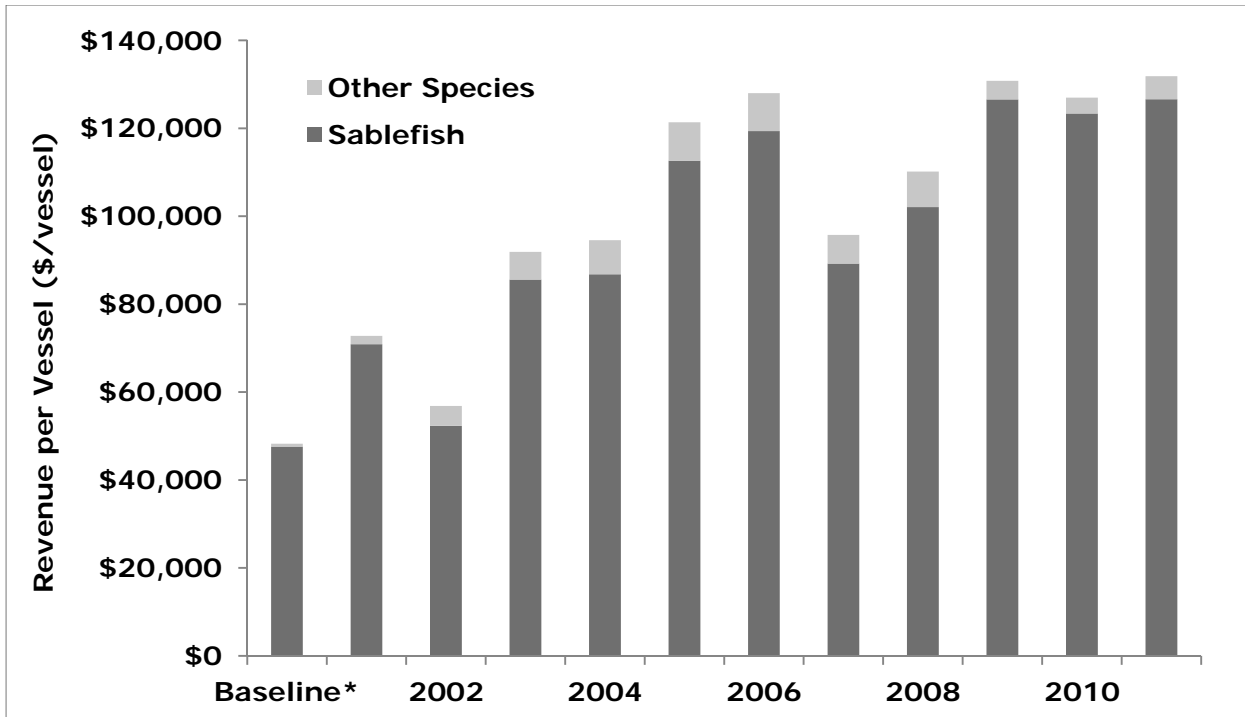


Figure 94. Sablefish and non-sablefish revenue (inflation-adjusted 2010 dollars) per vessel fishing quota in the Pacific Coast Sablefish Permit Stacking Program

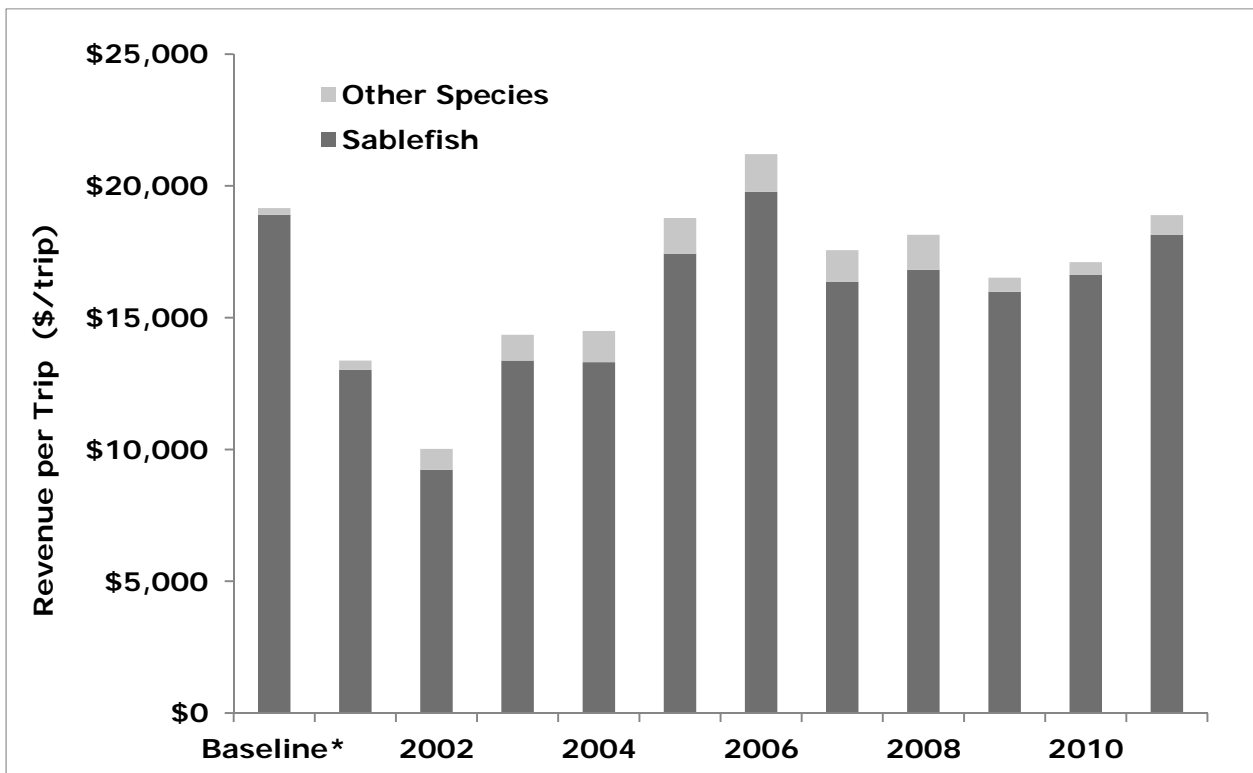


Figure 95. Sablefish and non-sablefish revenue (inflation-adjusted 2010 dollars) per trip that vessels fish quota in the Pacific Coast Sablefish Permit Stacking Program

Pacific Groundfish Trawl Rationalization Program

a. Management History

The Pacific groundfish trawl fishery includes several separate components: a non-whiting trawl fishery that targets a variety of flatfish, roundfish, thornyheads, and some rockfish using a bottom trawl, and a whiting fishery that uses a mid-water trawl to almost exclusively harvest whiting. The fishery also encounters numerous other rockfish species as bycatch – several of these rockfish species have been declared overfished. For management purposes, the whiting trawl sector was further subdivided into three sectors: a shorebased sector of fishing vessels that delivers whiting to shorebased processors; a catcher processor sector that harvests whiting and processes it on-board; and motherships, at-sea processors that receive whiting catch from catcher vessels. Under the IFQ Program, the shorebased whiting sector was combined with the non-whiting trawl sector.

Recognizing the differences between the shoreside and at-sea non-whiting and whiting sectors, the PFMC developed an Individual Fishing Quota program (IFQ Program) for the shorebased trawl sector (vessels that land whiting and other groundfish) and a cooperative management structure for the whiting trawl sectors. Prior to the IFQ Program, the non-whiting component of the shorebased trawl sector had been managed through an overall quota combined with trip limits, seasonal closures, gear restrictions, and area restrictions such as the Rockfish Conservation Areas. These measures were adopted to rebuild groundfish and avoid bycatch of overfished stocks of rockfish. However, as these measures became increasingly restrictive, there was growing concern over the economic viability of the non-whiting trawl fishery. Lack of flexibility and individual accountability were cited as pressing management concerns. The shorebased whiting industry also was managed in ways to protect overfished species. As a result, the PFMC adopted an IFQ Program for the shorebased trawl sector and a program of cooperatives for the whiting shorebased and the whiting mothership sectors. Since the whiting catcher-processor sector already was operating under a voluntary cooperative, this sector was largely left unaltered. (If the cooperative disbands, there are regulatory measures in place to convert this sector to an IFQ fishery.) Development of the shorebased trawl IFQ Program and whiting cooperative programs were initiated in 2003 and implemented for the 2011 year. Although the IFQ Program and cooperative programs manage two separate components (shorebased and at-sea) of the groundfish fishery, the programs are referred to collectively as the Pacific Groundfish Trawl Rationalization Program.

The catch share program indicators were developed to measure the performance of the harvesting sector. Since both the mothership and catcher processor components of the Trawl Rationalization Program have a significant processor component, a different set of indicators would be better suited to evaluate program performance for these components of the Pacific groundfish trawl fishery. For this reason the focus of this section is on the shorebased IFQ fishery which comprises the non-whiting and whiting trawlers. However, even though there is substantial overlap in terms of participating vessels the two fisheries are, by and large, distinct fisheries with the shorebased trawl IFQ program and are treated as such below for purposes of reporting.

b. Objectives

The goal of the Pacific Groundfish Trawl Rationalization Program was to “create and implement a capacity rationalization plan that increases net economic benefits, creates individual economic stability, provides for full utilization of the trawl sector allocation, considers environmental impacts and achieves individual accountability of catch and bycatch”.

The plan objectives included

- Provide a mechanism for total catch accounting
- Provide for a viable, profitable, and efficient groundfish fishery
- Promote practices that reduce bycatch and discard mortality and minimize ecological impacts
- Increase operational flexibility
- Minimize adverse effects from an IFQ Program on fishing communities and other fisheries
- Promote measurable economic and employment benefits through the seafood catching, processing, distribution elements, and support sectors of the industry
- Provide quality product for the consumer
- Increase safety in the fishery

c. Key Events/Features

The shorebased trawl IFQ Program includes a number of features that are designed to meet program objectives. For example, anticipating that there may be unintended consequences with the IFQ Program, a set-aside of 10% of the available quota was created for use in an adaptive management program. A moratorium was placed on sale of quota shares for the first two years of the program although leasing of quota pounds is allowed. The moratorium allows more time for industry participants to learn more about the value of quota to avoid mistakes (buyer/seller remorse) that may be made before quota values have been established. For the non-whiting trawl component of the IFQ Program, a share cap was established that varied by species (anywhere from 2.5% to 17.7%) as well as an aggregate cap of no more than 2.7% of the total combined quota for all non-whiting IFQ Program species. An ownership cap of 10% was established for whiting. Cost recovery has not yet been implemented for the trawl rationalization program.

d. Recent Trends

All trends discussed below are displayed in Table 6. Since the catch share programs started in 2011, the Baseline Period is the average of 2008-2010. However, due to major changes brought on by the new shorebased IFQ catch share programs, a number of Baseline Period statistics were not sufficiently comparable to provide a meaningful benchmark for comparing catch share program performance over time. These metrics include quota, entities holding share, number of trips, and number of days. This also means that calculated metrics based on missing Baseline Period data are also not calculated. All performance measures are shown in Table 6.

- i. Catch and Landings - All weights are reported by round-weight pounds (i.e., whole).

The combined quota for the trawl IFQ program was 375 million pounds for 206 million pounds was whiting and 169 million pounds was groundfish species other than whiting species. Aggregate landings of whiting during the Baseline Period (2008-2010) averaged 113 million pounds but were 199 million pounds in 2011. In 2011, 97% of the available whiting quota was harvested. By contrast, 23% of the non-whiting trawl quota was harvested during 2011 as aggregate landings were 38 million pounds, down from 51 million pounds during the Baseline Period.

- ii. Effort

Quota shares were initially allocated to 166 limited entry trawl permits (limited entry permits held by catcher processors did not receive quota share) and to 10 shorebased whiting processors. These initial allocations were consolidated into 138 quota share permits/accounts because many of these permits were owned by the same entity. Of these quota accounts most received a quota share for both whiting and non-whiting while the remainder received quota share for only whiting or non-whiting but not both. In 2011, there were a total of 78 entities

holding whiting quota share and 128 entities that held non-whiting quota share. During 2011, 26 vessels (33% of entities holding share) participated in the shorebased whiting trawl IFQ while 94 (73% of entities holding share) vessels participated in the non-whiting trawl IFQ. Compared to the Baseline Period the number of active vessels during 2011 in both the shorebased whiting and non-whiting trawl fishery declined, 27% (from 36 to 26 vessels in 2011) and 18% (from 115 to 94 vessels in 2011) in the whiting fishery and non-whiting fishery, respectively.

On average, 579 whiting trips were taken during the Baseline Period and the season length averaged 141 days. In 2011, the whiting trawl IFQ fishery remained open for an additional 59 days and the number of trips increased to 894. The season length for the non-whiting IFQ trawl fishery was nearly identical to that of the Baseline Period, but total trips declined by 40% from 2,447 to 1,480.

- iii. Revenue - All revenue and cost recovery data have been adjusted by the GDP deflator indexed for 2010.

Overall, the combined revenue from the whiting and non-whiting shorebased trawl IFQ increased in 2011 by 38% from \$38 million in the Baseline Period to \$52 million in 2011. The majority of this increase was due to the whiting fishery as revenue from the whiting fishery increased from \$9 million to \$22 million, an increase of 139%. Aggregate catch share program revenue in the non-whiting IFQ fishery also increased but by a more modest 6%.

The average price per pound in 2011 increased from \$0.08 per pound during the Baseline Period to \$0.11 per pound in 2011 even though aggregate whiting landings were much higher. The average price for non-whiting catch share species increased from \$0.57 per pound in the Baseline Period to \$0.80 per pound in 2011. This price increase (42%) was sufficient to offset the 25% reduction in non-whiting IFQ landings resulting in an increase in the non-whiting trawl fishery revenue noted above.

Fishermen often target and land other fish species on groundfish trips. The Pacific Trawl Rationalization Program covers a substantial number of species. However, there are some groundfish species that are taken in such minor amounts, it was deemed that they should continue to be managed by trip limits and not be a direct part of the IFQ Program; therefore, there is a small amount of revenue from non-catch share species. In the whiting fishery, revenue from species other than whiting were less than 1% in the both the Baseline Period and in 2011. In the non-whiting IFQ fishery, revenue from non-catch share program species averaged 4% of total revenue on catch share program trips during the Baseline Period and was 3% of revenue in 2011. Performance indicators that include non-catch share program revenues are reported in Table 6, however, given the small value received from non-catch share program species, discussion of the remaining performance measures including revenue per vessel, revenue per trip, and revenue per day will focus only on catch share revenues.

Catch share program revenue per active vessel in the whiting IFQ fishery more than tripled in 2011 compared to the Baseline Period from \$254,000 to \$842,000. This large change was due to the combined effect of more than doubled revenue in the whiting IFQ fishery and a one-third reduction in active vessels in 2011. Whiting revenue per trip increased in 2011 by 55% from an average of \$15,800 during the Baseline Period to \$24,500 per trip. This increase in revenue per trip was lower than that of revenue per active vessel because the number of whiting IFQ trips in 2011 increased by 40%.

Revenue per active vessel also increased in the non-whiting groundfish trawl IFQ fishery from \$250,000 during the Baseline Period to \$325,000, an increase of approximately 30%. Catch share program revenue per trip increased by 75% from \$11,700 during the Baseline Period to \$20,600 in 2011. The change in revenue per trip exceeded that of revenue per active vessel in the non-whiting groundfish trawl IFQ program because of the combined effects of a modest 6%

increase in revenues and a 40% reduction in the number of non-whiting IFQ trips taken during 2011.

Table 6. Summary Performance Metrics for Year 1 (2011) of the Pacific Groundfish Trawl Rationalization Program

	Whiting Trawl IFQ		Non-Whiting Trawl IFQ	
	Baseline Period (2008-2010)	2011	Baseline Period (2008-2010)	2011
Catch and Landings				
Quota allocated to Program (pounds)	NA	205,778,378	NA	168,978,027
Aggregate Landings	113,287,740	199,326,215	50,800,790	38,074,314
% Utilization	NA	97%	NA	23%
ACL exceeded	NA	N	NA	N
Effort				
Entities holding share (number)	NA	78	NA	128
Active Vessels	36	26	115	94
Days at Sea (days)	NA	2,949	NA	4,881
Trips (number)	579	894	2,447	1,480
Season length (days)	141	200	365	355
Revenue				
Catch share program revenue	9,143,017	21,889,458	28,787,608	30,561,256
Non-Catch share program revenue	11,778	54,781	1,140,876	926,689
Average CS Species Price (\$/pound)	0.08	0.11	0.57	0.80
Catch share program Revenue per active vessel (\$/vessel)	253,973	841,902	250,327	325,120
Non-catch share program Revenue per active vessel (\$/vessel)	327	2,107	9,921	9,858
Catch share program revenue per day at sea (\$/vessel)	NA	7,423	NA	6,261
Non-catch share program Revenue per day at sea(\$/vessel)	NA	19	NA	190
Catch share program Revenue per trip (\$/vessel)	15,791	24,485	11,764	20,649
Non-catch share program Revenue per trip (\$/vessel)	20	61	466	626
Other				
Excessive Share Cap	NA	Yes	NA	Yes
Cost Recovery Fee Collected (\$)		NA		NA