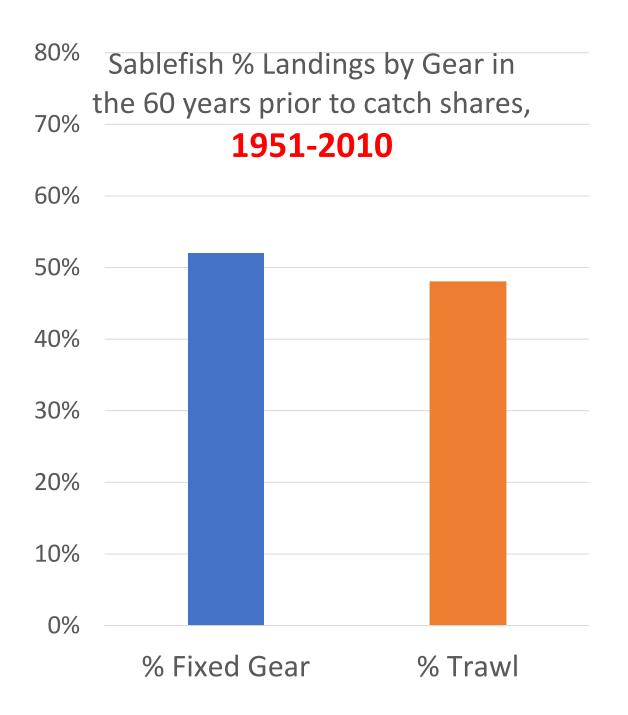
Underutilization of the Trawl Sector Allocation

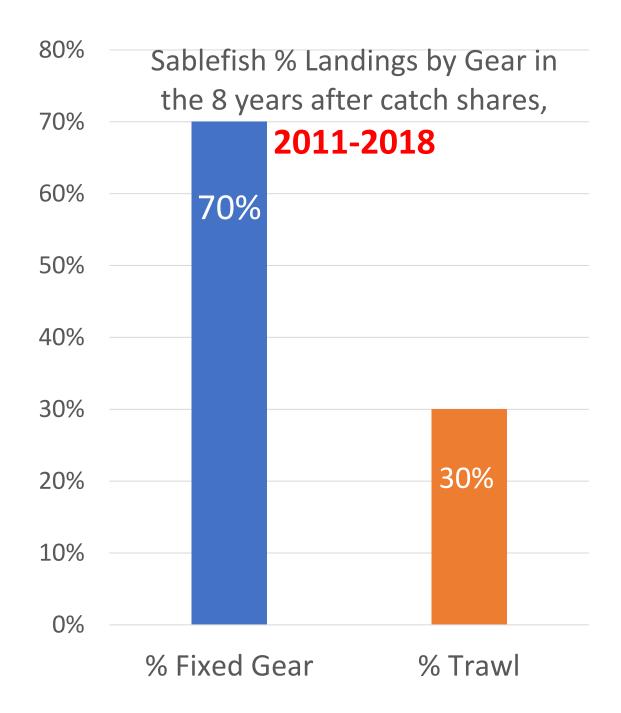
This document provides background on the bottom trawl fishery and the issue of utilization levels under the catch share program and the gear switching provision



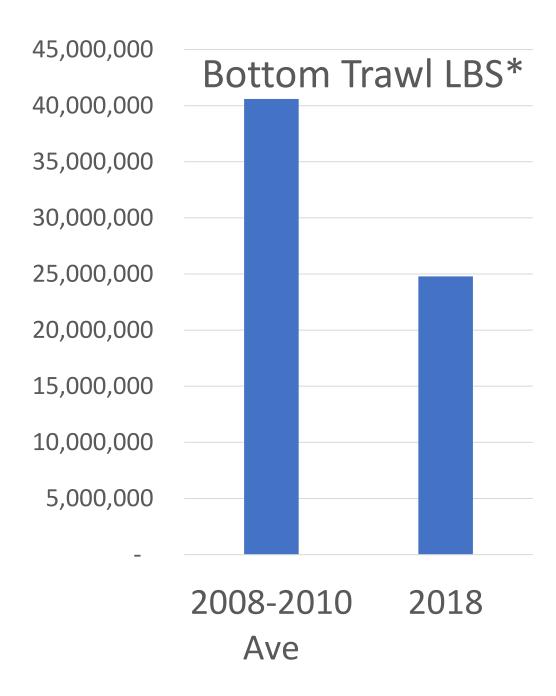
The Trawl baseline for west coast sablefish was **48%** for 60 years prior to catch shares, with the lowest decade being 44%

Data source: 8/1/19 Status of the sablefish stock in U.S. waters in 2019 – Table 1

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Despite six decades of a near even split between trawl and fixed gear, after catch shares the trawl split went to 30%; with fixed gear accounting for nearly 2 ½ times that amount



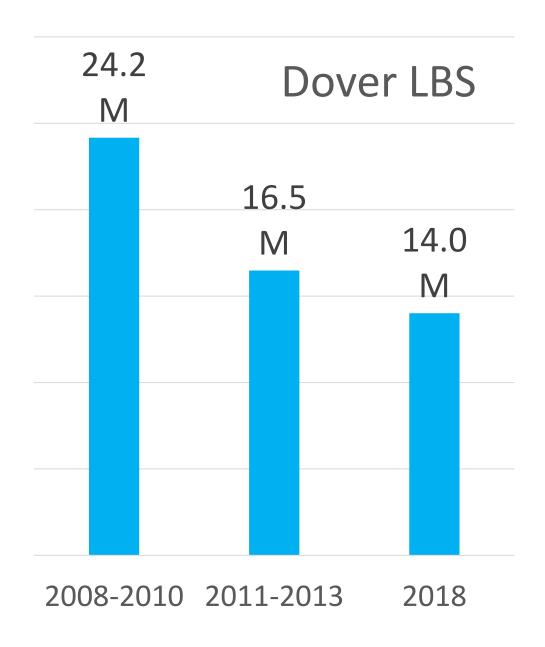
The pre catch shares baseline for bottom trawl landings was over 40 million lbs; but is now less than 25 million

Data source: Estimated Discard and Catch of Groundfish Species in the 20XX & 2018 US West Coast Fisheries

^{*} Bottom trawl lbs excludes petrale, sable, and hake

Consolidation & Replacement: It is obvious from the below 2009-2014 EDC catcher vessel report (pg 10) excerpt that there was anticipated consolidation under catch shares; but there was also replacement of trawl vessels and effort with fixed gear vessels. Some have asked, "Is this a problem?" or "Do fixed gear vessels have any impact at all on the drastic decreases in attainment?" To help answer those questions, it is helpful to 1) Refer to previous slides, 2) look at the next 3 slides about the DTS complex and 3) then look at the following two slides that compare the impact of trawl and fixed gear vessels.

"There were 54 vessels that fished in 2009 and/or 2010 that did not fish in 2014... Despite the exit of some vessels from the catch share program, there were 17 vessels that fished in 2014 but did not fish in the trawl fishery in 2009 or 2010. Of those "new" vessels, 13 now fish in the Groundfish fixed gear with trawl endorsement fishery."



The pre catch shares dover baseline was 24.2 million lbs per year. Post catch shares saw an immediate 32% drop down to 16.5 million lbs, and has further declined from there to 14.0 million lbs

Excerpt Figure 40 From <u>Five</u> Year Review:

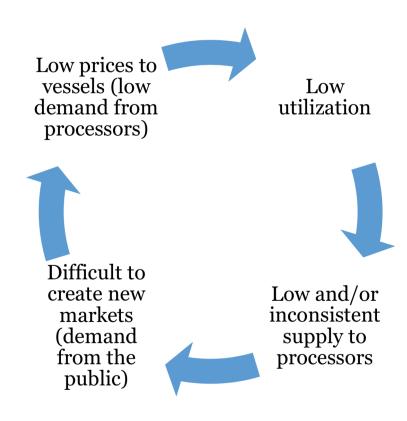


Figure 40. Illustration of cycle of low demand and low utilization.

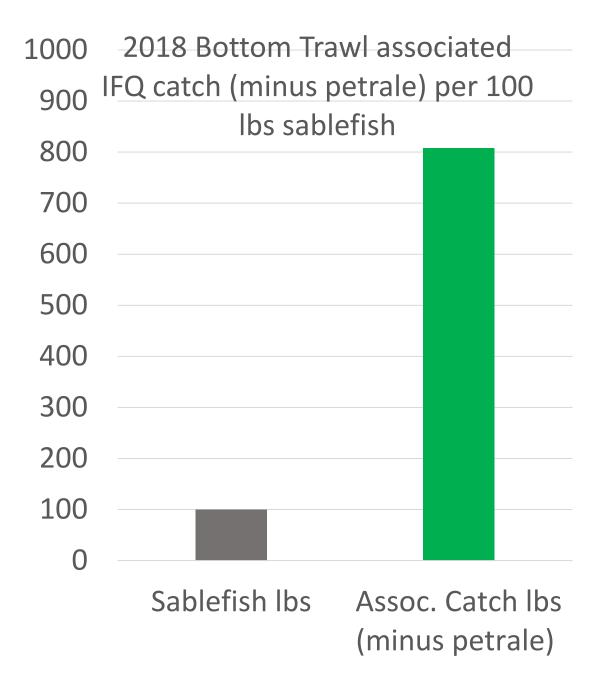
The cycle of inconsistent supply to processors (ex: dover) leads to a cycle of low attainment & reduced profitability for harvester and processor, further dragged down by in the cycle by inevitable trip limits and longer delivery intervals.

The exit of sable from the trawl fishery and the uncertainty, affordability, and reduced amount of remaining sable has a massive impact on this downward cycle; as supported by the dover catch results.

Sable is essential in targeting dover (& thorneyheads) not only as incidental catch, but also for efficient targeting strategies and economic viability.

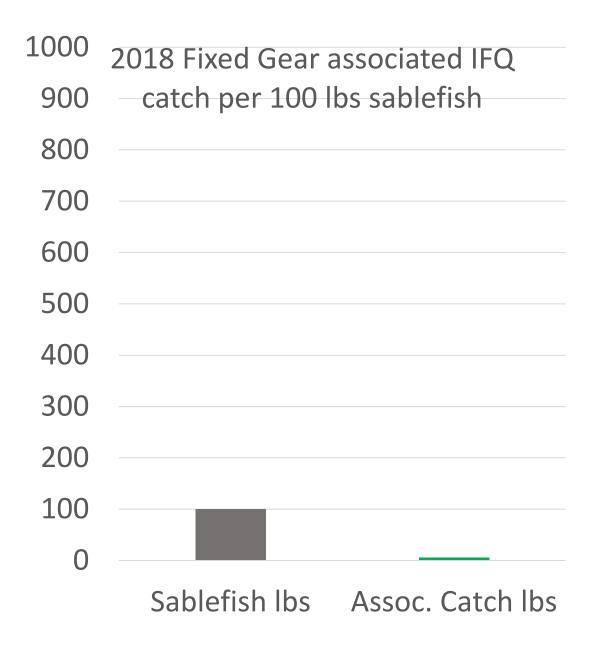
The five year review document makes clear the link between fixed gear attainment of sable and reduced attainment of DTS species

- The utilization of sablefish by the fixed gear fishery has contributed to the decrease in attainment of Dover sole and thornyheads by vessels fishing with trawl gear (Five-Year Review Pg 172)
- The DTS complex is one of the most economically important fishing strategies for the non-whiting groundfish trawl fleet (Steiner and Holland working paper). In the DTS trawl complex, sablefish is targeted along with Dover sole, longspine and shortspine thornyhead rockfish, and other rockfish and flatfish in smaller volumes. Sablefish quota is the principal constraint on DTS trawl fishing because it is the only target stock that approaches full utilization and is higher value than the other species (Appendix A). (Five-Year Review Pg 162)
- Table 73 of five year review shows a theoretical 2015 upper bound dover increase of 10.4%, or 10.5 million lbs, in the absence of gear switching. Based on 2019 increase of sablefish ACL and extrapolation using same method, that translates to an upper bound dover increase of 14.5%, or 14.7 million lbs, in the absence of gear switching.



In 2018, on average, every 100 lbs of sablefish for a trawl vessel corresponded to 808 lbs of other IFQ catch (minus petrale)

Data source: Estimated Discard and Catch of Groundfish Species in the 2018 US West Coast Fisheries



In 2018, on average, every 100 lbs of sablefish for a FG vessel corresponded to 5 lbs of other IFQ catch (minus petrale)

When replacing large scale trawl effort that leverages on average 100 lbs of sable into 808 lbs of other IFQ species with fixed gear effort that leverages on average 100 lbs of sable into 5 lbs of other IFQ species, a clear picture emerges of significant impact of fixed gear use on the utilization of other IFQ species, which is backed up by the data. In addition, the immediate 32% reduction in dover attainment under catch shares corresponded to a 27% share of northern sable landings attributed to fixed gear. Moreover, with the downward cycle of processor capacity and the DTS fishery and fewer bottom trawl trips, other bottom trawl dominant species decrease as well.

To recap, under catch shares & the unlimited gear switching provision there has been a massive trawl reduction from pre catch shares baseline in the following areas:

- 60 year average of trawl portion of sable of 48% was reduced to 30%
- Pre catch shares average of over 40 million lbs annually of bottom trawl catch was reduced to under 25 million lbs
- Pre catch shares average of 24.2 million lbs annually of dover was immediately reduced to 16.5 million lbs with catch shares, then further reduced to current level of 14.0 million lbs

It is also worth noting that species stock health and ACL's are currently much improved over pre catch shares condition, yet the catch shares result is still that of a massive reduction in bottom trawl catch