

Yellowtail historical information from trawl fishermen JL 5/2/2025

The purpose of this document is to describe fleet patterns over time and observations of the species related to trawl fishing of yellowtail rockfish to be informative for stock assessment authors, particularly related to fleet selectivity. This information is derived from conversations with fishermen and compiled by Jeff Lackey.

- 1) 2000 to 2011 changes: Major trawl changes primarily from about 2000 to 2011 vastly reduced fishermen's ability to target yellowtail in their primary habitat which is near rough / rocky terrain inside of 100 fathoms. Those changes were:
 - a. 2000 - The big footrope (larger than 8") was banned inside of 100 fathoms (noted on page 27 of 2018 stock assessment). 8" footrope rule had intended effect of causing gear damage if boats tried to trawl through very rocky areas where rockfish live, including yellowtail. So this measure protected both habitat and specific fish, like rockfish – both adult and juvenile; and this was done without closing areas.
 - b. 2003 - The buyback program removed 91 trawl vessels from the fleet.
 - c. 2006 – EFH implemented with rocky habitat closures to bottom trawl for many of the best fishing grounds for yellowtail.
 - d. 2011 – Trawl catch shares program implemented which further limited ability to target yellowtail due to:
 - i. 100% individual accountability on limited sometimes co-occurring species of canary & yelloweye
 - ii. Structure of program incentivized large-scale consolidation of the bottom trawl fleet, generating similar impact of 2003 buyback program
 - iii. Impact of i & ii above was to greatly reduce # of boats and available strategies fishing summer inside 100 fathoms; the limited # of boats that still fish inside 100 fathoms in summer have far more limitations and more accountability than they did previously
 - e. 2019 - EFH updates to the 2006 EFH rule added additional closures in rough / rocky habitat. The current EFH bottom trawl closed areas

have much of the prime habitat for yellowtail that decades ago were some of the main targeting places for yellowtail with bottom trawl, but that is forever changed with all of the above changes; now both the bottom trawl survey and bottom trawl fishery generally do not go where the biggest concentrations of yellowtail primarily live.

- f. Note – there are other more transient factors that have impacted yellowtail catch over the years, primarily dips in allocations such as sometimes co-occurring widow rockfish in the 2000's. Widow is now not really a limiting factor. Whereas the other above items are mostly still in effect now and for the foreseeable future and limit targeting of yellowtail in their primary habitat.
- 2) Yellowtail behavior and fishing patterns: To provide additional context, especially important when considered in conjunction with the 2000 to 2011 changes, it is worth noting the following:
- a. Yellowtail, like many rockfish, live primarily around rocky habitat, but some come off the rocks on occasion before moving back to rocks.
 - b. There can be some targeted bottom trawl targeting of yellowtail by a handful of boats in Washington, but bottom trawl for the last decade averages less than 10%-15% of overall annual trawl catch.
 - c. Yellowtail trawl catch is mostly midwater. Some is caught as incidental catch in the hake fishery, and some is caught during mid-water rockfish targeting. Most of the mid-water rockfish targeting for yellowtail takes place by whiting boats late September through early November as hake fishery is nearing its end and boats don't need the yellowtail quota for insurance against larger than normal incidental catch events while targeting whiting. This late year midwater yellowtail targeting is limited in scope and areas.
 - d. There are a very small number of boats, mostly out of the river, that can surgically target mixed widow and yellowtail throughout the year (not waiting until end of year) because they have enough yellowtail quota and canary quota to do so; but this is not the case for everyone and only works in certain areas where canary may not be so bad. Risk of canary catch is another reason yellowtail targeting is more of a late year strategy. Bottom line, given all the previously mentioned factors, yellowtail caught during January through August is largely incidental, but at some time starting around September a significant amount of the yellowtail catch comes from targeting.

- e. Yellowtail are semi-pelagic.
 - f. Bigger, older fish are generally more on the bottom; younger, smaller fish are generally shallower and higher in water column.
 - g. Some yellowtail on occasion drift west over edge of shelf, maybe because of tide or chasing feed (or both). If yellowtail are on the bottom at a rocky area of about 75 fathoms, and they drift west over the edge to deeper waters, they stay up in the water columns at about 50-60 fathoms, then move back to their home rocks on the shelf. This drifting westward is where yellowtail bycatch in the whiting fishery can come from. These are usually the smaller fish.
 - h. Yellowtail encounters can ebb and flow in Oregon, particularly in the hake fishery. Although not common, every once in a while, there will be a year where a school of yellowtail can be found frequently at about that 50-60 fathom range of the water column out over the edge of Heceta Bank and whiting fishermen know to watch out for it to avoid.
 - i. Trawl survey is hit or miss on yellowtail. The prime yellowtail ground is not trawlable on survey. And if yellowtail is caught on a survey tow on somewhat bumpy ground, the tow may not count if the net bounces off bottom more than allowed by protocol.
 - j. Bottom trawl nets have evolved in the trawl fishery. The 2000-2011 changes listed above helped drive the change. Many boats historically used a high rise (4+ fathom vertical opening) with large footrope that targeted rockfish well including yellowtail. Post 2011 there were far fewer boats, and the remaining ones mostly had less than 2 fathom vertical net openings, fished deeper or with small footrope shallower, and focused more on sole than rockfish.
- 3) General impression of yellowtail stock: Based on mid-water trawl catch rates and avoidance rates, particularly off of Washington coast, the impression is the stock is healthy, at a minimum stable, and possibly growing even with the increase in annual catch starting in 2017.
- a. Majority of yellowtail catch is in IFQ midwater fishery. Annual yellowtail catch increased significantly starting in 2017 at the same time widow & canary IFQ allocations had an 8X & 22X increase respectively. Average of annual IFQ yellowtail catch 2011-2016 was 2.2M lbs and for 2017-2024 was 6.4M lbs. Despite this annual

yellowtail catch increase, the catch / avoidance rates are still showing strong or even growing signs.

- b. These midwater catch rates for yellowtail are both the incidental (hake targeting) and target (rockfish targeting) rates. The midwater avoidance rates for yellowtail are primarily in the hake fishery, more evident off of Washington coast, and refer to fishing out over the edge (of the shelf) and trying to distinguish hake and yellowtail sign and avoid the yellowtail, particularly in morning hours. The impression is that catch & avoidance rates in doing so have not abated in the last decade and if anything have continued to increase.
- c. Given the fishery modifications listed in “2000-2011 changes” section, there is a general feeling that the fishery management structure protects prime grounds and habitat inside 100 fathoms with accountability in such a way to allow the main stock to grow and flourish, live a long time and spawn year after year, and produce results that are being seen in the ocean. This feeling is strengthened by fishermen who participated in fisheries pre-2000 and post-2011, know the large differences between the two, and know we are not going back to pre-2000.
- d. The impression of a healthy, productive stock also seems in alignment with 2024 SAFE document observations that yellowtail *“have a high growth rate relative to other rockfish species”* and female 50 percent maturity occurring at *“six to ten years.”*
- e. Fishermen who have lived through many ocean cycles including El Nino and La Nina cycles of various strengths also note that for transboundary stocks like yellowtail that there can be some ebb & flow of US west coast population unrelated to fishing impacts. However, the conservative fishery management structure post-2011 previously described places the stock in a strong position to go through the natural ebb & flow.