

CALIFORNIA DEPARTMENT OF FISH & WILDLIFE REPORT ON SCOPING OF MOTHERSHIP SECTOR UTILIZATION

The California Department of Fish and Wildlife (CDFW) has bycatch, socio-economic, and workload concerns over the Mothership (MS) Utilization proposals 1 and 5 listed in the Groundfish Advisory Subpanel (GAP) Informational Report for High Priority Groundfish Items from June 2020 ([Informational Report 4, June 2020](#)):

- Proposal 1 is to extend the primary whiting fishing season off the west coast, allowing it to open earlier than the current May 15 start date (3 options). The proposal would change the start date for potentially all whiting sectors; despite that this agenda item is titled 'Mothership Utilization,' following from the draft Purpose and Need.
- Proposal 5 would remove the prohibition of at-sea processing south of 42°N.

Both proposals are likely to increase bycatch of Chinook and coho salmon, as well as groundfish stocks for which the at-sea sector has set-asides (e.g., sablefish, widow rockfish, yellowtail rockfish). There may also be socio-economic impacts to California coastal communities from additional out-of-state vessels operating off California. These potential impacts would likely require additional analyses from the National Marine Fisheries Service (NMFS), Groundfish Management Team (GMT), and State agencies.

However, even if additional analyses on salmon bycatch were conducted, CDFW is concerned they would not provide adequate information south of 42°N due to the paucity of stock-specific data on salmon distributions. There is also no mechanism to evaluate how new whiting activity would affect existing sport or commercial salmon fisheries, or the pre-season planning for those fisheries.

In the Klamath Management Zone off Northern California (CA KMZ), commercial salmon fisheries have not occurred prior to May since 1978. Nor is there any contemporary data prior to May for recreational salmon fisheries in the CA KMZ, which have not opened that early since 1986. Of additional note, whiting fisheries tend to encounter younger salmon that are below minimum size limits for directed salmon fisheries, further limiting our ability to understand which salmon stocks are likely to be impacted as whiting bycatch. Given the poor status of salmon stocks encountered off California, these uncertainties are very worrisome should at-sea processing be allowed south of 42°N and/or the whiting fishery season begin prior to May 15th.

Per the 2017 Biological Opinion evaluating the impact of the Pacific Coast Groundfish Fishery on listed salmonids (hereafter referred to as 2017 BiOp):

“Consultation shall be reinitiated if any of the following events occur: (1) the total bycatch in the [whiting] sector exceeds 14,500 Chinook salmon or 474 coho in a calendar year, (2) any of the Reserve is used in three out of any consecutive five years, (3) the distribution of the whiting fleet changes substantially from that described in Figures 24 and 26 under the Northern distribution or Figures 25 and 27 under the Southern distribution. In particular, bycatch and bycatch rates are anticipated to be higher and more variable when the whiting fleet fishes under a Southern

distribution; the fleet therefore has a substantial risk of exceeding the allowable take limits without effective management measures...

Under the Southern distribution, [whiting] bycatch could exceed the 11,000-bycatch guideline more than 50 percent of the time under either of the attainment levels, acknowledging the variation in location, depth, and other factors inherent in the data. Under this scenario, most of the bycatch would occur in the at-sea sector. Bycatch could be as high as 17,656 Chinook under the likely bycatch range for the Southern distribution, depending on the level of attainment.”

CDFW has concerns that proposals 1 and 5 each have significant potential to trigger the Endangered Species Act (ESA) re-consultation due to changes in the distribution of the whiting fleet, both spatially and temporally. But even more important is the risk that regardless of whether thresholds are attained, a significant number of the salmon taken as bycatch south of 42°N in the California KMZ may likely be comprised of stocks that are of ongoing concern, arising from the fact that ‘Chinook’ is used as a surrogate for these stocks in the BiOp.

While the existing BiOp does include sector bycatch guidelines, and the Pacific Fishery Management Council (Council) has done an admirable job to develop and recommend overarching coastwide mitigation measures to slow salmon bycatch, proposals 1 and 5 would allow fishing well outside of the realm of what was previously analyzed. Thus, it is unknown whether these same bycatch guidelines and mitigation measures will afford the necessary protection for critical stocks.

Status of California Salmon Stocks

The status of most California salmon stocks has not improved since at-sea processing of whiting off California was last proposed during 2015 via Exempted Fishing Permits for the 2017-18 Groundfish Management Biennium ([Agenda Item I.2, Attachment 2, November 2015](#); [Agenda Item I.2, Attachment 3, November 2015](#)), and in general have declined further. Since that last Council discussion, the stock that was of most concern at that time, Klamath River fall Chinook (KRFC), experienced its lowest natural area adult spawner return in 24 years during the fall of 2016, with just under 14,000 adults returning to natural areas. For comparison, the KRFC conservation objective is 40,700 adults. After the 2017 spawner return the following year, which was less than half of the conservation objective for a second year in a row, KRFC met the criteria for overfished status. The most recent spawner return in the fall of 2019 was again less than half of the conservation objective, diminishing any hope that KRFC may attain rebuilt status in the near-term.

The depressed status of KRFC in recent years has caused extreme hardships in coastal communities in Oregon and California, as well as inland communities within the Klamath Basin. The projected number of potential natural area adult spawners in 2017 was the lowest on record, prompting widespread fishery closures during that year. In the ocean, this resulted in the closure of the entire KMZ, for both commercial and recreational fisheries. Other areas to the north and south, while not completely closed, experienced extremely limited seasons. In-river fisheries were not spared, as the State of California completely closed the fall-run recreational fishery in the Klamath Basin, and the Yurok Tribe canceled their fall-run subsistence fishery for the first time in history. The economic hardships during that year were so severe that a federal fishery

disaster was declared. Now, three years later, the CA KMZ is again completely closed to commercial salmon fishing for the second time in four years.

Unfortunately, the constraints imposed upon the CA KMZ commercial salmon fleet have been a recurring reality for decades. Beginning with the 1985 season, the commercial fishery in the CA KMZ has been completely closed in 11 of the last 36 years. During the years when it has been open, the seasons have generally been severely curtailed, averaging 35 open days per year. On top of the limited number of days, the commercial harvest in the CA KMZ has been capped annually with quotas since 1997. These quotas are always quite small relative to harvest elsewhere on the California coast, averaging about 8,000 fish per year compared to the statewide total commercial harvest during that same time which averaged almost 234,000 fish. Additionally, there have only been five years since the quota system in the CA KMZ began when fishing has been allowed earlier than September, well past the time when salmon fishing is usually at its best, resulting in many of these small quotas not ever being attained.

Notably, a large portion of the CA KMZ has not been accessible to the commercial fleet for almost 30 years, as the southern 40 nautical miles of the 115-nautical-mile-long management area (from Humboldt South Jetty, 40°45'N down to Fort Bragg Management Zone 40°05'N) has been completely closed to commercial salmon fishing since 1992. CDFW notes that National Marine Fisheries Service has raised some concern with potential impacts of a proposed reduction to the size of this closed area. NMFS references a lack of information available to fully analyze the impacts of the proposed line move of the California KMZ from 40°05'N to 40°10'N ([Agenda Item H.2, Attachment 1](#)).

The significant fishery constraints in the CA KMZ stem from a history of deliberate sharing of the KRFC resource. Every year since 1994, 50% of the allowable harvest impacts on KRFC has been set aside for Klamath Basin Tribes. Of the remaining share for non-Tribal sectors, at least 15% is allocated to the in-river recreational fishery, and the remainder left for the ocean fishery is negotiated between the recreational and commercial sectors, and between the states of Oregon and California. This leaves little KRFC to work with for the individual non-Tribal sectors and deciding where and when to use these impacts requires careful consideration to ensure a fair and equitable season across the coast. In particular, the commercial fishery has higher contact rates on KRFC than the recreational fishery due to differences in their gear and associated fishing depths; and the commercial fishery in the CA KMZ has the highest KRFC contact rates of any area because it is where the Klamath River mouth is located. Thus, commercial harvest opportunities in this management area are usually forgone to allow for more extended seasons elsewhere on the coast, because any time placed in the CA KMZ will quickly use up the allowable commercial KRFC impacts.

Adding complexity to the situation, even in years with higher KRFC abundances, the ocean fishery is still constrained by the consultation standard for ESA-listed California coastal Chinook, which relies on a fixed age-4 KRFC ocean exploitation rate cap as a proxy. Again, this restriction is felt the hardest in the CA KMZ commercial fishery due to it having the highest KRFC contact rates, but in this situation it is even more costly because the commercial fleet also has higher contact rates on older salmon, namely age-4 and up. In the vast majority of years, regardless of KRFC status, prosecuting a viable commercial fishery in the CA KMZ is not realistic due to this ESA constraint. Additionally, coho-directed salmon fisheries have been prohibited south of 42°N since

the early 1990s to protect ESA-listed coho stocks, while the same stocks can be retained north of 42°N.

It is for these reasons that at-sea processing of whiting was prohibited south of 42°N, and the situation has not changed and is arguably worse. Since there are currently not enough KRFC in the ocean to support a meaningful commercial salmon fishery in the CA KMZ, and there have not been for the last three and a half decades, it does not seem prudent to enact any changes in the whiting fishery that may increase bycatch of KRFC and further impact the very limited directed salmon fisheries that are prosecuted in this area. Coded-wire tag recoveries of salmon bycatch in the whiting fishery are severely lacking, but analyses of the limited years of data from the California at-sea (1988-1991) and shoreside (1998-2009) whiting sectors indicated that KRFC compose large proportions of the salmon bycatch in many years, averaging 36% and 44% of tag recoveries, respectively ([Agenda Item I.1.a, Supplemental CDFW Report, March 2017](#)). Thus, given the conservation concerns associated with KRFC and other salmon stocks within the CA KMZ, and the resultant constraints they have caused on directed salmon fisheries, CDFW opposes any further consideration of proposals 1 and 5 in waters south of 42°N.

Groundfish Bycatch

An earlier start date for the primary whiting fishery and expanding the at-sea processing area south of 42°N could also increase impacts on groundfish set aside stocks due to the increased effort of the MS fleet in time and space. The groundfish stocks with set asides that would likely incur the most notable impacts would be widow rockfish, sablefish, and yellowtail rockfish. From 2015 through June 2020, up to 11 catcher vessels have sporadically fished whiting south of 42°N (Table 1). However, the inconsistent nature of the catcher vessel operations south of 42°N, makes it difficult to generate bycatch projections for this area.

During the decision-making process for the 2021-22 management cycle, the Council adopted industry's proposal to reduce the at-sea set aside of widow rockfish from 764.1 mt to 476 mt, in response to needs in the non-whiting individual fishing quota (IFQ) fishery. The reduced set-aside of 476 mt was based on the at-sea 5-year (2015-2019) maximum estimated mortality from operations north of 42°N. Additionally, with the re-emergence of the non-whiting midwater trawl fishery targeting midwater stocks such as widow rockfish, this coastwide stock has become highly attained in the IFQ fishery in the last two years. Given the recent high attainments, the IFQ fishery is projected to easily attain the allocation increase it will be receiving in 2021. Therefore, finding any additional widow rockfish to cover potential growth of the whiting fishery south of 42°N could be difficult in light of developing widow rockfish target fisheries in other sectors.

Table 1. Number of catcher vessels, catch and ex-vessel revenue for Pacific whiting for south of 42°N, and coastwide from the MS fishery, 2015 – 2020 (Data source: PacFIN NPAC 8/20/2020).

Year	Number of catcher vessels S of 42°N	Pacific whiting catch weight (mt) S of 42°N	Ex-vessel Revenue Pacific whiting S of 42°N	Number of catcher vessels coastwide	Pacific whiting catch weight (mt) coastwide	Ex-Vessel Revenue Pacific whiting coastwide
2015	4	176.16	\$30,711	14	27,664.7	\$4,374,538
2016	6	418.10	\$80,396	17	65,035.3	\$12,198,010
2017	*1	*	*	15	66,429.6	\$11,348,361
2018	11	3,697.57	\$638,084	17	67,121.3	\$11,563,589
2019	3	180.04	\$38,824	19	52,648.4	\$10,703,113
2020 ²	11	8,402.59	\$1,222,936	15	32,834.2	\$4,832,233

Notes:

1. * Confidential
2. Preliminary data through June 14, 2020.

As a result of recent year overages in the sablefish set aside amount, the at-sea fishery will be receiving a 50 mt increase for north of 36°N to cover additional impacts for the 2021-22 biennial harvest specifications cycle. Notably, additional effort from a longer season south to and beyond 42°N was not part of the GMT analysis, nor did the Council deliberate any further increase to the set aside. As noted in the updated Preliminary Assessment of the Trawl Under-Attainment Issues and Sablefish Area Management and Trawl Allocation Attainment Committee Alternative Qualification Criteria ([Agenda Item D.1., Attachment 1](#)), sablefish is highly attained in all sectors north of 36°N, and may be considered fully attained in the IFQ fishery. Given the at-sea set aside for sablefish is a within-trawl allocation set aside, it is unclear at this time where any additional sablefish would come from to cover potential growth of the whiting fishery south of 42°N.

For yellowtail rockfish, take from the at-sea fishery since 2017 has been near or has exceeded their set aside of 300 mt (Table 2). Like widow rockfish, yellowtail rockfish is targeted by the non-whiting midwater fishery and the fishery has rapidly increased its attainment since 2018. With the increasing attainment in the IFQ fishery and anticipated increase in attainment in fixed gear fisheries, were the Council to provide an increase in the at-sea bycatch set aside, it would come at the expense of the developing directed fisheries in other sectors. Moreover, the at-sea set aside for yellowtail rockfish is for the stock north of 40°10'N. If the MS fleet were to begin operations south of the 40°10'N management line, allocations and set asides would need to be reviewed for stocks and complexes south of the management line.

Table 2. Catch weight (mt) of yellowtail rockfish from the at-sea sector with the percent of the 300 mt set aside.

Year	Catch weight (mt)	Percent of 300 mt set aside
2015	82.49	27.5%
2016	62.28	20.8%
2017	277.82	92.6%
2018	229.76	76.6%
2019	317.60	105.9%
2020 ¹	166.13	55.4%

Notes:

1. Preliminary data through June 14, 2020.

California Coastal Communities

If all or a portion of the at-sea fleet were to increase effort south of 42°N, California coastal communities could experience a decline in shoreside whiting landings as a result of additional effort from catcher vessels delivering to the MS vessels which make their deliveries into Oregon. While there are specific allocations for the MS, CP, and shoreside IFQ Pacific whiting fisheries, there may be indirect economic impacts from non-California based whiting fishing activity on California based shoreside fishery participants.

For example in 2020, the effort and ex-vessel revenue from catcher vessels in the MS fishery operating south of 42°N is the highest it has been over the past five years (Table 1). For context,

the effort and ex-vessel revenue from the MS fishery, coastwide, is also provided in Table 1. Slightly more than a quarter of the 2020 catch and ex-vessel revenue thus far has come from operations south of 42°N, yet none of this catch was delivered to California ports.

If the MS fishery were to fully operate (i.e., catch and process) south of 42°N, the increase in vessels and effort could negatively impact California coastal communities by increasing the competition on fishing grounds off California with vessels that both catch and land Pacific whiting and other groundfish in California. Many of the coastal communities, especially in northern California, rely heavily on the fishing industry in their area, as described in the Appendix B. section of the Considerations of Changes to the Yelloweye Rockfish Rebuilding Plan ([Agenda Item E.4., Attachment 5, June 2018](#)). To fully understand the perceived and projected impacts to California coastal communities, a socio-economic analysis would be necessary if the Council were to proceed with proposals 1 and 5.

Workload Considerations

In 2015, when the Council last discussed proposals to process whiting at-sea south of 42°N, GMT workload was a major consideration in determining how the Council would proceed with the proposals. Five years later, GMT workload is still a concern, and more so now with the reduction of state agency staff and all of the other competing priorities on the current Groundfish Workload Prioritization List. Including proposals 1 and 5 among the range of alternatives would detract from making progress on other proposed solutions. CDFW supports the suggestion in the joint staff report ([Agenda Item D.2., Attachment 3](#)) to prioritize proposals which may help reduce complexity of the action, those that may move the action into regulation more quickly, those that negligibly change bycatch impacts, or those that eliminate the need to reinitiate consultation of the 2017 BiOp.