GROUNDFISH MANAGEMENT TEAM REPORT ON PACIFIC WHITING UTILIZATION IN THE AT-SEA SECTORS

The Groundfish Management Team (GMT) reviewed the materials in the advanced briefing book, including the Draft Analytical Document (Agenda Item C.3, Attachment 1, September 2021), and received a briefing from Mr. Brett Wiedoff and Ms. Jessi Doerpinghaus from Pacific Fishery Management Council (Council) staff. The GMT commented on the issue of Pacific whiting, and specifically mothership (MS), utilization during the September 2020 and March 2021 Council meetings (Agenda Item D.2.a, Supplemental GMT Report 3, September 2020; Agenda Item G.3.a, Supplemental GMT Report 1, March 2021). The Council's action under this agenda item consists of two parts: 1) adopt a Range of Alternatives (ROA) and 2) select a Preliminary Preferred Alternative (PPA), as appropriate.

ROA & PPA

Given the GMT's considerations outlined below, the team believes that all proposals and alternatives listed in the Attachment 1 analytical document should be included in the ROA, and that prior analyses support the following actions for PPA:

- adjusting the whiting season start date to May 1,
- removing the obligation deadline from regulation,
- increasing or removing the MS processor cap, and
- allowing a vessel to be registered as both a MS and catcher-processor (CP) in the same calendar year.

The GMT does not provide specific guidance on the appropriate level of the MS processor cap or the number of permit transfers allowed, but we offer comments to inform the Council's decision.

I. Season Start Date

Under this proposal, the No Action alternative would be to maintain a May 15 season start date for all three whiting sectors, and Alternative 1 would adjust the season start date for all whiting sectors to May 1, with annual cooperative applications and Salmon Mitigation Plans (SMP) due 45 days prior to the season start date.

Salmon Bycatch

Much of the analysis for this proposal centers on potential salmon bycatch impacts. The GMT notes that existing salmon bycatch minimization measures will remain in place. In addition to closure of the fishery in the event that the 11,000 Chinook salmon threshold (plus the 3,500 fish reserve, if applicable) is met, several other regulatory tools exist to minimize salmon bycatch in the Pacific whiting fishery.

The Council recommended in June 2020, and the National Marine Fisheries Service (NMFS) implemented, the salmon bycatch minimization rule (86 FR 10857) in response to the 2017 NMFS Biological Opinion. As part of the rule, Block Area Closures (BACs; i.e. size and time variable closures) were made available as a routine management measure for midwater trawl vessels

coastwide. The final rule states that NMFS may "close or reopen BACs preseason (e.g. before the start of the fishing year or before the May 15 start of the primary season for Pacific whiting fishery) or inseason" (86 FR 10857).

Secondly, NMFS created the ability for vessel groups (three-vessel minimum) to submit proposals for SMPs, which are defined as a "voluntary agreement by a cooperative or group of vessels in the [non-tribal Pacific whiting fishery] to manage Chinook salmon bycatch" (86 FR 10857). All vessels in the CP and MS sectors, and a subset of vessels in the shoreside sector have submitted approved SMPs in 2021 and plan to do so on an annual basis. SMPs serve as formal documentation of the mitigation measures that Pacific whiting sector cooperatives or groups of vessels are using to minimize salmon bycatch. The internal tools that the whiting fishery cooperatives currently use to minimize bycatch of salmon include (Agenda Item H.9, Attachment 1 (Revised), November 2019):

- information sharing that allows for daily reports and hot spot guidance,
- area closures based on haul level bycatch data,
- movement rules that require a vessel to relocate based on high bycatch,
- voluntary salmon excluders which allow stronger-swimming fish like salmon to escape the net, and
- co-op specific internal Chinook salmon bycatch guidelines, such as seasonal pools in the MS sector.

Additionally, each co-op is required to submit an annual post-season report by March 31 of each year in order to receive that year's co-op permit.

Non-Whiting Groundfish Bycatch

Tables 6 and 7 in the Attachment 1 Analysis demonstrate that, with the exception of yellowtail rockfish, bycatch rates for non-whiting groundfish stocks tend to be higher in fall months than in spring. The following analysis includes all three sectors of the whiting fishery (MS, CP, and shoreside whiting), since the whiting season start date would be adjusted for all three sectors. Pacific spiny dogfish bycatch in the whiting fishery is extremely variable year-to-year, with a minimum of 0.2 mt in 2016 and a maximum of 640 mt in 2018 for the time period between 2011 and 2019. A full stock assessment for Pacific spiny dogfish is currently being considered by the Council, and further analysis into uncertainty around the survey catchability parameters is also being explored. The draft assessment under consideration estimates that the Pacific spiny dogfish stock has been below the management target since around the year 2000 (Agenda Item G.5, Attachment 3, June 2021), and, if adopted, management of the stock will likely be given close consideration during the upcoming harvest specifications cycle.

The GMT considered potential expected changes in Pacific spiny dogfish bycatch in the whiting fishery under different effort changes with a May 1 start date. As shown in Figure 1 below, the amount of Pacific spiny dogfish catch relative to Pacific whiting catch (i.e. bycatch rate) during the month of November has increased in recent years for all three sectors, while rates have remained similar in the month of May.

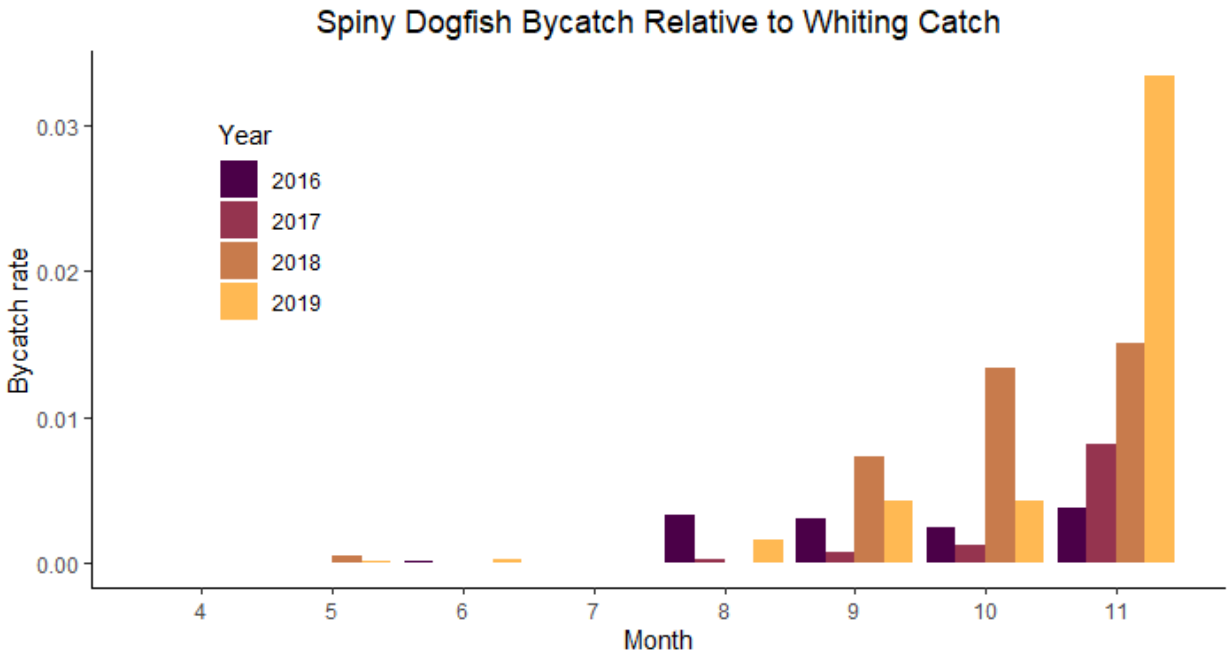

Figure 1. Bycatch rate of Pacific spiny dogfish relative to total Pacific whiting catch by month in the CP, MS, and Shoreside Whiting Sectors from 2016 through 2019. (Source: PacFin Comprehensive_NPAC & Comprehensive_FT 9/7/2021)

Assuming that moving the season start date earlier would result in effort shifting from fall to spring for the CP and shoreside sectors, as the analysis indicates could be the case for those high-attaining sectors, annual Pacific spiny dogfish bycatch in the CP and shoreside sectors could be reduced by an estimated 103.5 mt.[1] If effort increases in the spring but remains the same in fall for the low-attaining MS sector, annual Pacific spiny dogfish bycatch in the MS sector could increase by an estimated 3.4 mt.[2] Table 1 below shows these potential changes in Pacific spiny dogfish bycatch assuming different effort changes for the whiting sectors.

[1] Assuming that the average annual amount caught May 15-31 in recent years (2016-2019) is representative of the amount that could be caught May 1-14, this estimate is produced by applying the average annual rate of Pacific spiny dogfish to Pacific whiting catch in May to the potential additional amount of Pacific whiting that could be taken in the first two weeks of May (i.e., the average annual amount of Pacific whiting taken in May). We then subtracted this amount from the estimated amount of Pacific spiny dogfish that could be caught in the entire month of November, using the same rate-based calculation but assuming that only half of the average amount of Pacific whiting is caught. Estimates were produced for the CP and shoreside sectors individually and then combined.

[2] This estimate is produced by applying the average rate of Pacific spiny dogfish bycatch to Pacific whiting catch in the Pacific whiting fisheries in May to the potential additional amount of Pacific whiting that could be taken in the first two weeks of May (i.e., the average annual amount of Pacific whiting taken in May).

Table 1. Potential annual change in Pacific spiny dogfish bycatch estimated based on potential effort changes for the different whiting fishery sectors under a May 1 season start date.

Sector(s)	Potential Effort Change	Change in Pacific Spiny Dogfish Bycatch (mt)	Net Change (mt)
CP & SS	Two additional weeks in May, Two fewer weeks in November	-103.5	-100.1
MS	Two additional weeks in May	+3.4	

Industry has noted, however, that whether effort is likely to shift or experience a net increase will ultimately reflect the decisions of individual vessels. Additionally, if fishing intensity shifts from one month to another, in addition to time spent fishing, these bycatch estimates may not be as representative of likely changes.

II. MS Obligation

Under this proposal, the No Action alternative would maintain the November 30 deadline through MS catcher vessel endorsed limited entry permit renewal, and Alternative 1 would remove the mothership processor obligation from regulation.

The Attachment 1 analysis points out that:

> *"Council heard substantial amounts of testimony and considered analysis which indicated that rationalization would tend to benefit harvesters but without a provision to specifically address the interest of processors, opportunism existed to shift the balance of power in the industry toward harvesters' favor at the expense of processors. The processor tie was viewed as one mechanism which may work at striking a balance between the harvester and the processor when a fishery moves to rationalization"* (Appendix B to Amendment 20 FEIS).

The original intent of Alternative 1 (removal of the obligation deadline) was to ensure that the balance between harvesters and processors would not be disrupted. If this alternative is included in the ROA, the GMT notes that further, likely qualitative, analysis should assess whether this original intent would be achieved. The GMT has heard from industry that existing harvester/processor relationships developed since the establishment of this requirement have made this regulation redundant.

III. MS Processor Cap

Under this proposal, the No Action alternative would maintain the status quo 45 percent MS processing limit. Alternatives 1 and 2 would adjust the MS processing limit to 65 or 85 percent, respectively, and Alternative 3 would remove the MS processor limit from regulation.

The Attachment 1 analysis indicates that a higher processing limit would likely be most valuable to the industry during years in which the Pacific whiting total allowable catch (TAC) is lower than current levels. The industry has experienced relatively high TACs since 2017. However, the 2021 Pacific whiting stock assessment estimated a drop in the stock abundance from 2017 to 2021 (Status of the Pacific Hake (whiting) stock in U.S. and Canadian waters in 2021), suggesting that

the industry could see lower allocations in the near future. Between 2020 and 2021, the coastwide annual catch limit (ACL) was reduced by 16 percent.

The GMT anticipates little to no difference in impacts between Alternatives 2 (85 percent) and 3 (removal). In a hypothetical scenario, if one MS platform processed the full 85 percent under Alternative 2, which is unlikely due to processing capacity constraints, the remaining 15 percent may not be enough to motivate an additional vessel to participate in the fishery. Such a scenario is unrealistic given that no vessels are currently even reaching, let alone exceeding, the existing 45 percent processing limit, and that, in general, five to six MS vessels participate each season. Yet, it demonstrates that a processing limit of 85 percent cannot guarantee that the initial purpose of the processing limit "to prevent excessive concentration of catch allocations" would be fulfilled. If the Council does not think that "excessive concentration of catch allocations" is likely under any of the alternatives (discussed below), the Council may wish to consider the greater administrative benefit of full removal from regulation compared to an 85 percent limit, given the low likelihood that an 85 percent limit would differ in operational flexibility from full removal.

National Standard 4 of the Magnuson-Stevens Act instructs that:

> *"...an allocation scheme must be designed to deter any person or other entity from acquiring an excessive share of fishing privileges, and to avoid creating conditions fostering inordinate control, by buyers or sellers, that would not otherwise exist."*

During the August 31 GMT webinar, NMFS indicated that the term "excessive" is intended to be interpreted on a fishery-by-fishery basis and at the discretion of each Council. The Attachment 1 analysis prompts the Council to consider whether there is a likelihood that removing the processing limit would create excessive shares either 1) within the MS sector or 2) across the whiting fishery.

Within the MS sector, catcher vessels will still be held to the 20 percent catch history assignment ownership limit and the 30 percent harvest limit. Across the whiting fishery, the analysis points out that there "would still be competition from other owners across the other whiting sectors and other fisheries that produce whitefish." A whiting vessel that prioritizes the Alaska pollock fishery, thereby reducing the number of MS platforms participating in the Pacific whiting fishery, is not driven out of the fishery due to competition but, rather, is making a business decision based on market variability. National Standard 4 instructs Councils to "avoid creating conditions fostering inordinate control… that would not otherwise exist." These varying market pressures that determine processor participation year to year do "otherwise exist" regardless of the existing allocation scheme. Additionally, the whiting fishery is a mature fishery that, since the original implementation of the processor cap, has internally established self-organization mechanisms and created long-standing business arrangements between mothership catcher vessels (MSCVs) and MS platforms that lower the likelihood of excessive consolidation compared to at the start of the fishery. Therefore, the GMT does not consider the fishery at risk of any person or entity acquiring excessive shares.

IV. MS Processor & CP Permit Transfer

Under this proposal, the No Action alternative would maintain that a vessel cannot be registered to a MS permit and a CP permit in the same calendar year, and Alternative 1 would allow a vessel to be registered to both a MS and CP permit in the same calendar year. Sub-options A and B would

allow a vessel to transfer permits up to two or four times, respectively, in a calendar year, and sub-option C would allow for unlimited transfers.

The rationale behind this restriction, namely that it would "prevent higher capacity vessels from harvesting other sector's allocations" (Agenda Item C.3, Attachment 1, September 2021) was based on the implementation of a new program in 1997, but the whiting fishery is now a mature fishery structured into cooperatives that have a history of internal management practices. The GMT views this restriction as no longer necessary and potentially administratively burdensome. The GMT does not provide a recommendation on the number of permit transfers allowed. However, we do note that the likelihood that a vessel could or would transfer greater than two times in a calendar year is currently low, but similar to our discussion under the processing cap, there are potential future scenarios in which a vessel could be motivated to transfer greater than two times, as noted in Arctic Storm Management Group's public comment letter.

V. Synergy Between Proposals

The GMT recognizes that co-dependencies exist between the four different proposals and that there may be additive benefits to increasing operational flexibility in a combination of ways, together as a package. The final Council-adopted purpose and need statement identifies that a potential driver of under-attainment is the limited availability for available processors to accept fish from catcher vessels, leading some catcher vessels to be stranded without a processor for a season or year(s) (Agenda Item G.3.a, Supplemental WDFW-ODFW Report 1, March 2021). Industry has indicated that, even without a processor obligation, pre-season arrangements between MSCVs and MS platforms will still be made to minimize uncertainty. Removing or increasing the 45 percent processing limit could maximize flexibility (and Pacific whiting attainment) gained from also removing the processor obligation. In the event that a MS platform chooses not to participate in the fishery after having already made arrangements with MSCVs, a processing limit higher than 45 percent (or none at all) would allow another MS vessel, that would otherwise be unable due to the limit, to accept those otherwise stranded MSCV deliveries. Likewise, if no other MS is able to accept those deliveries, for example due to processing capacity limitations, the ability for a CP vessel to transfer their permit to the MS sector provides another route through which the MSCVs would be able to make their deliveries.

Comments on Appendices

The GMT notes that the analysis in Appendix A outlining the simulation-based bootstrap model to project bycatch distributions was previously used in the 2017 BiOp and recommended by the Scientific and Statistical Committee (SSC) for this type of analysis (Agenda Item I.4.a, Supplemental SSC Report, November 2015), and is therefore considered best available science. The analysis uses the risk averse 80th percentile to provide a conservative estimate of Chinook salmon bycatch; in other words, there is an 80 percent probability that the actual number of Chinook salmon bycatch will be at or lower than that level.

Appendix B investigated whether the modeled stock compositions were representative of the stocks that may be encountered in the first two weeks of May and the potential impacts by evolutionarily significant units (ESUs) based on the 80th percentile estimate from Appendix A. Despite focusing on the compositional forecasting on the genetic data alone (and using the coded wire tags only to double check representativeness of the genetic data), the analysts drew the conclusion that their methods were the best available science and they found little evidence of

impacts on listed ESUs that were not previously captured in the 2017 BiOp. For determining the ESU impacts, this was done by inputting mean latitude of anticipated bycatch and the total number of Chinook salmon potentially taken in a season for specific time periods and sectors. Genetic data was used in two separate models (Dirichlet Regression and Multinomial Logistic Regression) and, given the different model strengths and weaknesses, conclusions were drawn based on the arithmetic mean of the two models. The GMT agrees with this conclusion and reiterates the importance of continued genetic data collection (i.e., observers) so as to have greater confidence when investigating and tracking ESU-specific bycatch in the future.

Salmon Advisory Subpanel Report

The Salmon Advisory Subpanel (SAS) is scheduled to meet and discuss this agenda item after the GMT's deadline to submit our report. We anticipate the SAS submitting a report concerning potential salmon impacts of these proposed actions. However, we are unable to review or discuss the contents of the SAS report in time for inclusion in this report. We may have additional thoughts or input after reviewing their report. At this time, the GMT notes that the existing salmon bycatch mitigation measures in the groundfish fishery will continue to be used regardless of decisions made under this agenda item. The GMT anticipates that these tools will ensure that salmon bycatch remains within the 2017 Biological Opinion thresholds.

PFMC
09/08/21