

OREGON DEPARTMENT OF FISH AND WILDLIFE REPORT ON PHASED-IN
APPROACHES TO CHANGING HARVEST CONTROL LIMITS: SCOPING

Introduction

The Oregon Department of Fish and Wildlife (ODFW) provides the following comments relative to Agenda Item D.5, Scoping Phased-In Approaches to Changing Harvest Limits. We thank the National Marine Fisheries Service (NMFS) for describing a suite of six potential approaches to mitigate negative socioeconomic impacts that may result from reductions in harvest limits in Agenda Item [D.5.a, NMFS Report 1](#). Here, we offer comments on several of those approaches, and provide an example illustrating the need for action in response to anticipated catch limit reductions. All ODFW comments in this report are specific to groundfish.

Selected approaches described in NMFS Report 1 (as numbered in NMFS Report 1)

- 4) **Case-by-case phase-in actions:** We believe this approach could provide valuable flexibility to consider an Acceptable Biological Catch (ABC) alternative to the default harvest control rule (HCR) for individual stocks in certain circumstances, while not “opening the door too wide” to too many requests.

The following steps and decision points could be used to phase in ABC reductions on a case-by-case basis. We lay these out simply to facilitate consideration of this approach, and invite input and refinement:

- a) Identify a stock for possible phase-in action based on its specific circumstances. The Council would likely only wish to consider accepting a smaller buffer between the overfishing limit (OFL) and the ABC, which could raise the risk of exceeding the OFL, when two conditions exist: (1) a clear need that could be addressed by a phase-in action, and (2) absence of a significant conservation concern.

The following criteria could be used to preliminarily identify socks that meet those conditions:

- Highly utilized (>75% annual catch limit (ACL) attainment)
 - Facing a significant ABC reduction (>10%)
 - Not overfished or subject to overfishing
 - Not in the precautionary zone (i.e., biomass above the management target)
- b) Identify an ABC alternative for the two years of the upcoming management cycle.
- c) Request projections using the alternative ABC from stock assessors, and request Scientific and Statistical Committee (SSC) review of the alternative projections, prior to the meeting at which a range of alternatives is selected for groundfish harvest specifications (usually November of odd numbered years).

d) Include the alternative ABC in the range of those analyzed for the next biennial management period. Information on the economic, social, and ecological trade-offs of this alternative would be available prior to Council decisions on groundfish harvest specifications and management measures.

5) **Phased-in ABC reduction:** The key element of this approach would be developing a control rule (or feature thereof) that phases in ABC reductions over several years, and amending the groundfish fishery management plan (FMP) to incorporate the new control rule. In addition, criteria for when the new control rule could be used would be specified in the FMP.

We believe this would make the alternative HCR available as an option for any stock, but it would only be used if the Council specifically requested its application for a particular stock during development of biennial harvest specifications. In that case, the resulting ABC would be analyzed and full information on its biological and socioeconomic impacts and overfishing risk would be available to the Council prior to a decision on preliminary preferred harvest specifications.

6) **Adjust maximum P* in the FMP:** We appreciate the discussion provided in NMFS Report 1 on this approach. As a reminder of the role of P* in the OFL-ABC buffer, we found information in several past presentations to the Council and new Council members^{1,2} helpful, particularly:

- The OFL is a median estimate, which means there is a 50% probability the estimate is too high (i.e., true OFL is lower) and a 50% probability the estimate is too low (i.e., actual OFL is higher)
- P* is the chance that the true OFL is less than the ABCs
- Any overfishing concern due to the true OFL being lower than the estimate can be mitigated by changing the probability from 50:50 (i.e., setting P* to less than .5)

We note that in NMFS Report 1, concerns are expressed that “Elevating risk tolerance through P* in order to permanently or in the long term, offset increased buffer size that reflects best scientific information available could erode the functional integrity of the OFL-ABC buffer”, and “The goal should not be to manipulate harvest control rule components in order to negate legitimate changes to current scientific information.” We offer a different view on intent.

We suggest that the very fact that how we account for that scientific uncertainty has changed (i.e., higher sigmas) may be an appropriate reason to revisit the policy component of the HCR, rather than “manipulating HCRs to negate legitimate changes in scientific information”. P* is defined in the [November 2018 groundfish Stock Assessment and Fishery Evaluation \(SAFE\) document](#) as “the probability of overfishing a stock based on the scientific uncertainty in

¹ Informational Briefing: An Overview of Scientific Uncertainty Buffers and Acceptable Biological Catch Specifications, Agenda Item E.4.a, Supplemental P* Overview PowerPoint, November, 2011. https://www.pcouncil.org/wp-content/uploads/E4a_SUP_Pstar_PPT_NOV2011BB.pdf

² National Standards and NS1 Guidelines (presentation), New Council Member Training, NOAA Fisheries, November 15, 2018. <https://www.fisheries.noaa.gov/event/2018-council-training> (slides 25 and 41)

estimating the OFL.” Given that the new sigma values account for greater OFL uncertainty, need the Council be so rigorous in its policy-based overfishing risk tolerance? Simply stated, since we know more about OFL uncertainty and have increased the scientific uncertainty buffer through higher sigmas, perhaps we could be less precautionary with P*.

If the Council pursues this approach, the maximum allowable P* value would be changed via an FMP amendment. National Standard 1 allows any value below 0.5, although the Council could consider a moderate increase from 0.45, for example to 0.47. This would ensure that some level of additional buffer between the OFL and ABC would remain to account for uncertainty related to factors that are not part of sigma.

It is important to note that simply raising the maximum P* in the FMP would not automatically result in a change to any P* in application; the default for each stock would remain status quo unless a change was proposed, analyzed, and approved through the biennial harvest specifications and management measures process. This would establish a new P* only for the two years of the next management cycle. Although the new P* would then be the default for the following management cycle, the Council could indicate a different intent (for example, by signaling that a lower P* should be considered during the following cycle) if desired. While an alternative P* is in place, a constant value could be used, or it could be stepped down for the second year.

For these reasons, changing the maximum P* could be seen as “moderate risk” rather than “high risk” as characterized in [NMFS Report 1](#), Table 1.

Example of need for a phased-in catch limit reduction: Oregon black rockfish

The Oregon black rockfish stock is of primary importance to recreational and nearshore commercial fisheries and fishing communities in Oregon. In particular, it is the backbone of the recreational groundfish fishery, comprising the majority of catch (approximately 70%) and driving the state’s general marine fish bag limit. In 2018, these fisheries contributed \$21.3 million dollars (\$19M recreational and \$2.3 M commercial) to Oregon’s communities, and supported 110,000 recreational angler trips and 2,462 commercial nearshore fishing trips. Current black rockfish quotas in both sectors are highly utilized and constrain opportunity, effort, and catch.

The stock was last assessed in 2015, when it was determined to be at 60% of unfished biomass (projected to be 54% in 2021). The biomass estimate produced by that assessment was lower than previously thought. Scale was a major uncertainty in the model, with a long-term (2002-2013) tagging study of this stock off the central Oregon coast suggesting considerably higher biomass; however, issues related to the catchability parameter hindered its use. Results from a new survey conducted by ODFW in 2018 (discussed below) in the same general area agreed with the tagging study in terms of the biomass scale. Based on the 2015 model’s inability to estimate recruitment deviations that the review panel found plausible, the stock was designated Category 2, although more data exist for black rockfish than any other nearshore stock in Oregon.

The 2015 assessment led to an ACL reduction of almost 10% from 2016 to 2017 (Table 1). This drop, in combination with full utilization and increasing recreational effort in Oregon, resulted in early attainment and unanticipated closure of the recreational fishery by state action in 2017, as well as pre-season and inseason bag limit reductions in 2018 and 2019. For example, the general marine bag limit was reduced in Oregon’s annual rule process from 7 to 5 fish for 2018, and was further lowered inseason to 4 fish when ODFW’s projections suggested that the recreational HG could be exceeded. These actions had negative socioeconomic impacts on Oregon anglers and communities, including severe impacts from the 2017 early closure. In 2018, although the lower bag limit helped prevent another early closure, some charter businesses and anglers reported to ODFW that a 4 fish bag limit is the “tipping point” at which anglers will choose not to go fishing, resulting in lost revenue, jobs, and recreational opportunity even if the fishery remains open.

Implementation of the new sigma methodology for this Category 2 stock will result in additional declines in the ACL, due to lower base sigma values, the “staleness penalty”, and the doubling of Category 1 sigmas for Category 2 stocks. Compared to the previous sigma values, the default HCR would reduce the catch limit by 17% (36 mt) 2021, with the difference growing to 21% (50 mt) in 2026, as detailed in Table 5 on page 5 of [Supplemental GMT Report 1 March 2019](#). These ACL reductions will result in further restrictions on fishing opportunity, including lower state harvest guidelines (HGs) for each sector, lower commercial trip limits, and likely a lower recreational bag limit and/or shorter season. These restrictions would have negative impacts on fishing communities, particularly recreational anglers, charter fishing businesses, and the many tackle shops, lodging, restaurants, and other businesses that are closely linked with recreational marine fishing in Oregon.

A new full assessment of the black rockfish stock is a top priority for Oregon. As previously noted, ODFW is concerned that the 2015 assessment may have underestimated biomass. Since that assessment, results of a 2018 pilot fishery-independent survey using hydroacoustic and visual methods in state waters off Newport indicated that statewide black rockfish biomass is two to three times higher than the 2015 assessment estimated, corroborating the earlier tagging study. ODFW and NOAA (through Saltonstall-Kennedy grant funding) have dedicated substantial resources to developing the new survey, which will be conducted on a statewide scale in 2019, with the explicit goal of informing a 2021 black rockfish assessment. In the meantime, we are confident that the current OFL is not too high relative to the “real” OFL, and in fact, we believe it is more likely too low. For this reason, a smaller OFL-ABC buffer would be acceptable to ODFW for this stock.

Until results of a new full assessment are available for use in management, and based on the circumstances described in this section, we urge the Council to consider an action that can stabilize catch limits for this stock and mitigate the negative socioeconomic impacts of further ACL reductions on the fisheries that depend on it.

Recommendation

As noted in NMFS Report 1, “...assessments can vary substantially in both the degree of uncertainty, and how that uncertainty is distributed and characterized within the assessment model (PFMC SAFE, 2018)”, and “The Council’s P* decision is therefore most appropriately considered

as a risk assessment given many sources of uncertainty regarding the true state of nature for a stock.” These statements underscore the need to evaluate the specific circumstances of each stock when determining whether to depart from the current level of overfishing risk tolerance (P^*).

Given the specific circumstances described above, **ODFW recommends pursuing a case-specific approach to addressing the need for catch limit stability in the Oregon black rockfish stock beginning in 2021.**

One possibility would be to consider a constant catch ABC for 2021-2022, perhaps at 512 mt, which is the 2020 ABC. For reference, recent catch limits for Oregon black rockfish as well as default and possible alternative limits for future years are shown in Table 1.

Table 1. Catch limits for Oregon Black Rockfish in recent and current years, as well as approximate catch limits under several alternative scenarios for 2021-2026.

Years	Scenario	Oregon black rockfish ACL (mt)	Recreational state HG (mt)	Commercial state HG (mt)
Pre-2017	based on 2007 assessment, old sigma, $P^*0.45$	580	441	139
2017-2020	based on 2015 assessment, old sigma, $P^*0.45$	526-512	398-388	126-122
2021-2026	old sigma, $P^*0.45$ (for reference)	510-502	386-380	122-120
	new sigmas, $P^*0.45$ (default for 2021-22)	479-455	363-344	114-109
	constant catch = 2020 ABC (possible alternative)	512	389	123
	new sigmas, $P^*0.47$	503-490	381-371	120-117
	new sigmas, $P^*0.49$	540-530	409-401	129-127