

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON  
BIENNIAL HARVEST SPECIFICATIONS FOR 2021 AND 2022 INCLUDING  
OVERFISHING LIMITS AND ACCEPTABLE BIOLOGICAL CATCHES

**Overfishing Limit (OFL) Determinations for the 2021-2022 Harvest Specifications**

At the September 2019 meeting, the Scientific and Statistical Committee (SSC) evaluated, and the Council adopted, overfishing limits (OFLs) for most stock and area combinations ([Agenda Item H.6, Attachment 1, November 2019](#)). However, OFL values from catch-only projections were not yet available for canary rockfish, English sole, shortspine thornyhead and brown rockfish, as those values depended on the outcome of additional analyses. Projections for these stocks and for alternatives under consideration for cowcod, lingcod, black rockfish, petrale sole, and sablefish were provided in [Agenda Item H.6, Attachment 2, November 2019](#). The SSC reviewed the updated basis for these values, confirmed that the resulting projections do not result in changes in the status of the stocks, and endorses them for use in management.

For canary rockfish, issues identified by the SSC at the September Council Meeting were addressed in the revisions to the catch-only projections.

For English sole, low OFLs resulting from unrealistic assumptions of full annual catch limit (ACL) attainment were recalculated using recent catch to provide more representative projections.

For shortspine thornyhead, an incorrect  $P^*$  value was previously used, and the correct value was used in the revised projections.

For brown rockfish, projections were not provided due to staff time constraints. Projections are now provided based on the 2013 data-moderate assessment using XDB-SRA under the default harvest control rule for this stock.

For cowcod, projections were provided reflecting the probability of overfishing ( $P^*$ ) of 0.45 under the default harvest control rule, as well as values of 0.4 and 0.3 under consideration to address the risk resulting from uncertainty in this relatively data-poor category 2 stock assessment. For each alternative, the OFLs for 2019 and 2020 should reflect the 61 mt and 62 mt OFLs in regulation, as opposed to the currently reflected values of 90.7 mt and 92.9 mt from the new assessment. While the assessment projections of OFL for 2019 and 2020 were not those currently specified in regulations, this error does not affect the resulting projections since the removal assumption was 3.1 mt each year in 2019 and 2020.

For black rockfish, the Oregon Department of Fish and Wildlife has proposed that the acceptable biological catch (ABC) for 2021 and 2022 be kept the same as in 2020, deviating from the values resulting from the 2015 assessment using default harvest control rules. This falls within the new National Standard 1 guidelines for phasing in changes to ABCs and provides a higher ABC in

2021 and 2022 than under the default harvest control rules in anticipation of the results of a full assessment in 2021 to inform future harvest levels. The SSC endorses the resulting ABCs for use in this management cycle, but this practice should be used sparingly in general and is not recommended on a recurring basis for any stock.

For petrale sole, Alternative 1 ACLs, which are predicted to keep the stock at equilibrium biomass and depletion in the next 10 years as well as Alternative 2 ACLs set equal to the ABC with a  $P^*$  of 0.4 were provided for comparison to the projections under the default harvest control rule (ACL = ABC ( $P^* = 0.45$ )). The SSC did not have concerns regarding the projections resulting from Alternatives 1 or 2.

For sablefish, the alternative reflecting an increase in the  $P^*$  to 0.45 from the status-quo value of 0.40 were projected correctly.

The OFLs adopted for 2022 are contingent on the assumption of ABC removals in 2021, which are in turn contingent on the Council's choice of the  $P^*$  or use of alternative harvest control rules and may need to be revised if new alternatives are adopted at this meeting. The SSC Groundfish Subcommittee can review and endorse additional changes to OFLs and ABCs between now and the March Council meeting, whether in person or via webinar as necessary.

The SSC would like to thank the assessment teams for the additional analyses conducted in time to inform final stock status and OFL determinations for the 2021-2022 management cycle.

### **Area Apportionment of Sablefish Annual Catch Limits**

The SSC reviewed the document "Groundfish Management Team Report on Proposed short-term improvements to sablefish ACL apportionment methods" ([Agenda Item H.6.a, GMT Report 1, November 2019](#)) and received an overview of the report from Patrick Mirick (Oregon Department of Fish and Wildlife, Groundfish Management Team [GMT]) and Chantel Wetzels (Northwest Fisheries Science Center, GMT). The SSC review focused on two alternative methods. The current method (Method 1) is based on the long-term average distribution of sablefish biomass observed in the West Coast Groundfish Bottom Trawl Survey north and south of 36° N lat. The proposed alternative method (Method 2) uses a 5-year moving average of the survey distribution.

While the GMT's report requests that the SSC endorse a method for apportioning the coastwide ABC into area-specific ACLs, ACL apportionment is an allocation issue and outside the scope of SSC responsibilities. If the Council would like to use a method that apportions ACLs in proportion to the current distribution of sablefish biomass north and south of 36° N. lat., the proposed alternative method (Method 2) is likely to better achieve that goal than Method 1. The SSC notes that other policy considerations could affect apportionment. Neither method for apportioning ACLs presents a biological risk.

The SSC notes there are some limitations with spatially apportioning the ABCs according to the trawl survey distribution. For example, a portion of the sablefish habitat in the southern region occurs inside the Cowcod Conservation Areas (CCAs), which are not sampled by the trawl survey and could introduce bias. The research and data needs statement for the 2019 sablefish stock

assessment identifies spatial structure as a future direction for model development. While a spatial stock assessment for sablefish would allow for integrating multiple datasets on the distribution of fish and could result in area-specific biomass estimates, the increased uncertainties that would result from the additional complexity may not make this a preferred approach.

PFMC  
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