

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE REPORT ON 2023 AND 2024 GROUNDFISH MANAGEMENT MEASURES

The Washington Department of Fish and Wildlife (WDFW) met with stakeholders on October 25, 2021, January 18, and March 16, 2022, to review and discuss proposed recreational management measures for 2023 and 2024. In this report, we summarize key points from the analysis of the proposed management measures and recommend preliminary preferred alternatives (PPA) for public review.

The harvest specifications alternatives that will impact the Washington recreational fishery in 2023 and 2024 are the annual catch limit (ACL) alternatives for the Washington vermilion rockfish contribution to the Shelf Rockfish Complex north of 40° 10' N. lat. There are two ACL alternatives, No Action and Alternative 1. The No Action alternative is slightly higher compared to Alternative 1, but both would set the component acceptable biological catch (ABC) at levels below what the Washington recreational fishery has taken in recent years. While catch projections are uncertain, and even more so this cycle because of the pandemic's effect on the fishery, the expectation is that changes in management measures will be needed to reduce catch of vermilion rockfish in the fishery.

Additional management measures are also likely needed to reduce total mortality of copper rockfish and quillback rockfish, both of which are managed in the Nearshore Rockfish Complex north of 40° 10' N. lat. The Council is only considering one alternative for these stocks, the No Action alternative.

The degree to which the Washington populations of vermilion, cooper, and quillback are connected to those off Oregon, California, and British Columbia is uncertain. The question of the appropriate stock units for evaluating overfishing and overfished status as well as the pros and cons of managing these stocks in stock complexes will be examined in detail as part of a broader evaluation by the Council following the 2023-2024 management cycle.

Recreational Management Measures

The alternatives for Washington recreational fisheries focus on retention restrictions for these species. None of the three are targeted in the fishery, they are primarily caught incidentally when fishing for other species. Based on stakeholder input, WDFW recommends the following management measures as the preliminary preferred alternative (PPA) to be considered along with the full range of alternatives for public review.

Bag Limits and Sub limits Coastwide (Marine Areas 1 – 4)

Recommendation:

1. Prohibit the retention of copper rockfish, quillback rockfish, and vermilion rockfish in May, June, and July.

Discussion:

The Washington recreational groundfish fishery is open from the second Saturday in March through the third Saturday in October. The daily bag limit is a total of 9 fish which can include up to 7 rockfish, 2 lingcod, and 1 cabezon and 5 flatfish species can be retained in addition to the 9 fish daily limit. This measure would maintain the daily and sub-bag limits currently in place but would prohibit the retention of copper rockfish, quillback rockfish, and vermilion rockfish during the months of May, June, and July.

WDFW explored sub-bag limits to reduce mortality for these species. However, anglers typically only retain one or two of these species as part of their daily catch and only when the fish are encountered incidentally. Adding a sub-limit would therefore be expected to have minimal effect.

Prohibitions on retention were therefore the main tool analyzed. No retention would reduce mortality by requiring incidentally caught fish to be released and by a portion of those released fish surviving.

The options for copper rockfish and quillback rockfish are projected to keep mortality below the species specific ACL contributions. Projected mortality for quillback rockfish under the 2023-2023 ACL contribution could be achieved by prohibiting retention only during May and June but input from stakeholders supported a management approach that prohibited retention for copper rockfish and quillback rockfish during the same months to simplify regulations and avoid confusion (Appendix).

For vermilion, the analysis considers the no retention prohibition being place over the entire season in addition to during May, June, and July which is the PPA recommended here. Prohibiting retention in those three months would be expected to lower mortality but not enough to stay below the Washington ACL contribution. The same is true for prohibiting retention over the whole season, although the catch projection expects mortality to be reduced closer to the ACL contribution (Appendix). Again, we would note that the methods used to project catch are uncertain and based largely on catch patterns observed in 2019 when catch of vermilion showed an unusual jump. With unusual conditions in 2020 and 2021, it is unclear whether the patterns seen in 2019 will persist or whether mortality will drop to pre-2019 levels.

The justification for recommending the PPA for vermilion is that (1) it aligns with the prohibition for copper rockfish and quillback rockfish and (2) addresses the need to manage the stock according to the best scientific information available. If retention is prohibited entirely then the

data flow needed for stock assessment would be fully cut off. There is no commercial catch of vermilion rockfish off Washington.

In November, the Scientific and Statistical Committee (SSC) recommended that the Oregon and Washington stock assessments be combined for purposes of status determination.¹ This would suggest that any conservation concern based on the Washington assessment alone would be more about local depletion than stock-wide overfishing. The stock structure of vermilion, however, is uncertain and we expect the question to be more fully evaluated as part of the broader effort to consider stock management units. With limited movement by spawners and larval dispersal over small distances (< 38 km), one study concluded that the areas around Neah Bay—where vermilion are most abundant off Washington—were connected to and should be managed together with areas to the north.²

Whether out of concern for preventing overfishing or local depletion, the management measures considered here are made based on the trends in the population suggested by the Washington assessment. The assessment estimates that the population was at B65% in 2021.³ Of concern, the assessment's forecasts show the population dropping 14 percent by 2023 under the assumed catch scenarios for 2021 and 2022. Actual catch in 2021 was lower than assumed and we expect the same will be true for 2022. If catch in 2021 and 2022 averages 1.5 mt per year instead of the assumed 3 mt, then the expected drop would only be 7 percent by 2023 (based on simple interpolation). At that level, the stock would be forecast to reach B40% by 2026.

Current mortality, shown as the average mortality from 2019 and 2021, are summarized in Table 1 below along with preliminary Washington harvest guidelines (HGs) and projected mortality for the preliminary preferred alternative.

¹ <https://www.pcouncil.org/documents/2021/11/e-3-a-supplemental-ssc-report-1-2.pdf/>

² Hyde, J.R. and R.D. Vetter. (2009). Population genetic structure in the redefined vermilion rockfish (*Sebastes miniatus*) indicates limited larval dispersal and reveals natural management units. Canadian Journal of Fisheries and Aquatic Sciences. 66(9): 1569-1581. <https://doi.org/10.1139/F09-104>.

³ Cope, J.M., T.-. Tsou, K. Hinton, C. Niles. (2021). Status of Vermilion rockfish (*Sebastes miniatus*) along the US West - Washington State coast in 2021. Pacific Fishery Management Council, Portland, Oregon. 99 p.

Table 1. Average 2019 and 2021 final mortality, 2023-2024 HG/ACT, and 2023-2024 projected mortality (mt) for the Washington recreational fishery under the Preferred Alternative.

Stock or Complex	2019 and 2021 (avg) Final Mortality	2023 WA HG/ACT	2024 WA HG/ACT	2023-2024 Projected Mortality PPA
Canary Rockfish	26.5	41.5	40.9	39.45
YELLOWEYE ROCKFISH (ACT)	3.23	10.4	10.4	3.23
Black Rockfish	181.8	290.0	289.0	213.10
Lingcod	175.05			175.05
Nearshore Rockfish Complex	8.7	18.3	17.8	6.89
<i>Blue Rockfish</i>	<i>1.1</i>	<i>5.9</i>	<i>5.8</i>	<i>1.15</i>
<i>Quillback Rockfish</i>	<i>2.56</i>	<i>2.2</i>	<i>2.2</i>	<i>1.82</i>
<i>Copper Rockfish</i>	<i>2.88</i>	<i>1.9</i>	<i>1.9</i>	<i>1.82</i>
<i>China Rockfish</i>	<i>2.1</i>	<i>8.3</i>	<i>8.0</i>	<i>2.11</i>
<i>Brown Rockfish</i>	-	-	-	-
<i>Grass Rockfish</i>	-	-	-	-
Yellowtail Rockfish	54.9	-	-	62.41
Vermilion Rockfish (Alt. 1)	1.97	0.6	0.6	1.50
Vermilion Rockfish (Alt. 2)	1.97	0.7	0.7	1.50
WA Cabezon/Kelp Greenling	9.1	20.0	17.0	9.06
<i>Cabezon</i>	<i>7.8</i>	<i>14.2</i>	<i>11.6</i>	<i>7.81</i>
<i>Kelp Greenling</i>	<i>1.3</i>	<i>5.5</i>	<i>5.5</i>	<i>1.25</i>

Table 1. Copper rockfish mortality savings and projected mortality for a range of no retention options compared to average 2019-2021 catch (mt). **PPA in bold.**

No Retention Options	Mortality Savings (mt)	Projected Mortality (mt)
Status quo		2.88
No retention in May	0.51	2.37
No retention in June	0.24	2.64
No retention in May and June	0.75	2.13
No Retention in July	0.32	2.56
No retention May – July	1.07	1.82

Table 2. Quillback rockfish mortality savings and projected mortality for a range of no retention options compared to average 2019-2021 catch (mt). **PPA in bold.**

No Retention Options	Mortality Savings (mt)	Projected Mortality (mt)
Status quo		2.56
No retention in May	0.3	2.26
No retention in June	0.19	2.37
No retention in May and June	0.49	2.07
No Retention in July	0.23	2.33
No retention May – July	0.72	1.81

Table 3. Vermilion rockfish mortality savings and projected mortality for a one fish sub-limit and a no retention option compared to average 2019-2021 catch(mt). **PPA in bold.**

Options	Mortality Savings (mt)	Projected Mortality (mt)
Status quo		1.97
1 vermilion rockfish	0.2	1.77
No retention May – July	0.47	1.50
No retention	1	0.97