

2025 Catch only Projection of Black Rockfish (*Sebastes melanops*) in state and federal waters off Oregon

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This document details a catch-only projection for black rockfish. The most recent assessment for black rockfish was conducted in 2023. This analysis updates catches between 2023 - 2024 to the best information about observed removals as provided by the Groundfish Management Team (GMT). The removals for 2025 and 2026 were set equal to mortality projections also provided by the GMT for each fleet in the model. For years 2027 and beyond, removals were set equal to the projected Annual Catch Limit (ACL) based on a category 1 time-varying σ of 0.5 and a P^* value of 0.45. These buffers differ from the previous stock assessment in order to incorporate a time-varying buffer that also adjusts for natural mortality values >0.15 . The equation is $0.52^* M$, and M is the geometric mean ($M=0.18$) of the female ($M=0.19$) and male natural mortality ($M=0.17$). This results in an increase in σ of 0.04675 (rather than 0.0375) each year and thus a larger buffer. Projections are provided through 2036 and assume the same gear selectivity in the most recent year of the stock assessment and the same proportions of catch among fisheries as in the last fixed catch year.

Table 1: Original 2023 projection and new catch-only projection for OFLs (mt), buffer, ABCs (mt), actual & assumed catch (mt), ACLs (mt), spawning output (millions of eggs), and stock status (fraction of unfished spawning output) given the removals. The gray shading indicates values associated with the original 2023 assessment projection. In both the original model and the new projection, the removals for years beyond the values in the ‘Actual & Assumed Removals’ columns are the ACL values estimated from that model.

Year	OFL (2023)	OFL	Buffer	ABC (2023)	ABC	Actual & Assumed Removals (2023)	Actual & Assumed Removals	ACL (2023)	ACL	Spawning Output	Stock Status (2023)	Stock Status
2023	—	—	—	—	—	512	414	—	—	674.10	0.452	0.452
2024	—	—	—	—	—	512	376	—	—	650.99	0.427	0.437
2025	368	—	—	344	—	—	344	344	—	634.23	0.402	0.426
2026	377	—	—	351	—	—	350	350	—	629.55	0.399	0.422
2027	388	402	0.923	360	371	—	—	360	371	632.17	0.402	0.424
2028	399	410	0.917	368	376	—	—	368	376	637.81	0.408	0.428
2029	407	416	0.912	373	380	—	—	373	380	646.07	0.416	0.434
2030	413	421	0.907	377	382	—	—	377	382	654.98	0.425	0.439
2031	418	424	0.901	380	382	—	—	380	382	663.42	0.433	0.445
2032	420	427	0.896	380	382	—	—	380	382	670.97	0.439	0.450
2033	423	429	0.891	380	382	—	—	380	382	677.47	0.445	0.455
2034	425	431	0.885	380	381	—	—	380	381	683.10	0.449	0.458
2035	—	432	0.880	—	380	—	—	—	380	688.13	—	0.462
2036	—	434	0.875	—	380	—	—	—	380	692.72	—	0.465