# Catch update for chilipepper rockfish (Sebastes goodei) off the U.S.West Coast. 

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This document details a catch-only projection for chilipepper rockfish off the U.S. West Coast. Chilipepper rockfish was most recently assessed in 2015 as an update of the 2007 benchmark assessment. However, in 2017 a historical catch-only update was conducted to correct for errors in historical catch estimates between 1916 and 2016. This analysis uses the 2017 model for the basis of a catch-only projection with time-varying buffers starting in 2015. Catches between 2017-2022 from the Groundfish Multiyear Mortality (GEMM) report split by fleet are fixed as the known catches. The removals for 2023 and 2024 were set equal to mortality projections provided by the Groundfish Management Team (GMT). For years 2025 beyond, catches were set equal to the projected Acceptable Biological Catch (ABC) based on a category 1 time-varying $\sigma$ and a $\mathrm{P}^{*}$ value of 0.45 . Chilipper rockfish are managed north and south of $40^{\circ} 10^{\prime} \mathrm{N}$. lat. with the estimated Overfishing Limits (OFLs) and ABCs split by area based on the historical landings of 93 percent and 7 percent of catch occurring south and north of $40^{\circ} 10^{\prime} \mathrm{N}$. lat., respectively.

Table 1: The estimated coastwide OFL (mt), ABC (mt), buffer, assumed removals (mt), spawning output in millions of eggs, and fraction unfished by year. The estimates of the coastwide OFL and ABC are split north and south of $40^{\circ} 10^{\prime} \mathrm{N}$. lat. with 93 and 7 percent allocated south and north, respectively.

| Year | $\begin{aligned} & \text { OFL } \\ & (\mathrm{mt}) \end{aligned}$ | $\begin{gathered} \hline \mathrm{ABC} \\ (\mathrm{mt}) \end{gathered}$ | Buffer | OFL S. | ABC S. | OFL N. | ABC N. | Assumed Removals (mt) | Spawning Output | Fraction Unfished |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2017 | - | - | - | - | - | - | - | 225.33 | 4707.86 | 0.69 |
| 2018 | - | - | - | - | - | - | - | 404.12 | 4860.67 | 0.72 |
| 2019 | - | - | - | - | - | - | - | 649.39 | 4955.70 | 0.73 |
| 2020 | - | - | - | - | - | - | - | 775.25 | 4995.94 | 0.73 |
| 2021 | - | - | - | - | - | - | - | 858.7 | 5012.36 | 0.74 |
| 2022 | - | - | - | - | - | - | - | 875.95 | 5017.22 | 0.74 |
| 2023 | - | - | - | - | - | - | - | 1082.21 | 5021.83 | 0.74 |
| 2024 | - | - |  | - | - | - | - | 1082.21 | 5008.41 | 0.74 |
| 2025 | 3363.5 | 3027.15 | 0.9 | 3128.06 | 2815.25 | 235.45 | 211.9 | - | 4994.04 | 0.73 |
| 2026 | 3171.2 | 2841.4 | 0.896 | 2949.22 | 2642.5 | 221.98 | 198.9 | - | 4694.26 | 0.69 |
| 2027 | 3007.18 | 2682.4 | 0.892 | 2796.68 | 2494.63 | 210.5 | 187.77 | - | 4438.58 | 0.65 |
| 2028 | 2870.29 | 2545.95 | 0.887 | 2669.37 | 2367.73 | 200.92 | 178.22 | - | 4224.32 | 0.62 |
| 2029 | 2758.17 | 2435.46 | 0.883 | 2565.1 | 2264.98 | 193.07 | 170.48 | - | 4046.95 | 0.60 |
| 2030 | 2666.55 | 2343.9 | 0.879 | 2479.89 | 2179.83 | 186.66 | 164.07 | - | 3899.97 | 0.57 |
| 2031 | 2590.95 | 2267.08 | 0.875 | 2409.58 | 2108.38 | 181.37 | 158.7 | - | 3777.66 | 0.56 |
| 2032 | 2527.61 | 2201.55 | 0.871 | 2350.68 | 2047.44 | 176.93 | 154.11 | - | 3675.16 | 0.54 |

