

## **GOUNDFISH MANAGEMENT TEAM (GMT) REPORT ON RECONSIDERATION OF THE COWCOD SOUTH OF 40° 10' N LAT. ANNUAL CATCH TARGET**

The preferred harvest control rule for cowcod south of 40° 10' N. lat. (hereafter “cowcod”) from the November 2021 Pacific Fishery Management Council (Council) meeting was to select the Default Harvest Control Rule (DHCR), which applies a P\* of 0.40 and sets the Annual Catch Limit (ACL) equal to the Acceptable Biological Catch (ABC) ([Decision Summary Document, November 2021](#)). In addition to selecting the DHCR at the November 2021 meeting, the Council adopted a preliminary preferred alternative (PPA) of maintaining the 50 mt annual catch target (ACT), below the Fishery Harvest Guideline (HG), zero retention of cowcod in the non-trawl sector, and a 50:50 split of the non-trawl allocation between the commercial and recreational sectors ([E.5, Biennial Management Measures for 2023-24 Motions In Writing, November 2021](#)). As a reminder, an ACT, as per 50 CFR 660.11, is defined as:

*“...a management target set below the annual catch limit and may be used as an accountability measure in cases where there is great uncertainty in inseason catch monitoring to ensure against exceeding an annual catch limit. Since the annual catch target is a target and not a limit it can be used in lieu of harvest guidelines or strategically to accomplish other management objectives. Sector-specific annual catch targets can also be specified to accomplish management objectives.”*

The 2021 assessments for quillback and copper rockfishes off California and southern California, respectively, indicate they are well below the management target of 40 percent of unfished spawning biomass. Therefore, the Council has taken action to reduce impacts on nearshore rockfish species in 2022, and for 2023 and beyond. In response, the Council is considering allowing more offshore opportunities for the non-trawl sector in the 2023-24 Harvest Specifications and Management Measures agenda item (i.e., proposed Action Item 12e) and potentially in the Non-Trawl Area Management agenda item scheduled for Council review in April 2022. Both items could allow effort from the non-trawl sector (commercial and recreational) to shift into deeper waters where there is a higher abundance of cowcod. Cowcod retention is prohibited in the non-trawl sector; however, if cowcod encounter rates increase in the non-trawl sector, cowcod mortality will increase solely due to barotrauma of reeling cowcod up from depth. While the 50 mt ACT was used in part to decrease the risk of exceeding the ACL of a newly rebuilt stock in the 2021-22 biennium, the needs and dynamics of the fishery may be changing in 2023-24 such that additional cowcod may be needed in the non-trawl sector to reduce the pressure on nearshore rockfish species. Additionally, inseason monitoring tools have been effective at monitoring cowcod mortality against the ACT and ACL. Therefore, the Council may want to consider removing the 50 mt ACT to provide additional flexibility and stability to the non-trawl sector south of 40° 10' N. lat.

Estimated total mortality of cowcod between 2019 and 2021 is shown in Table 1. 2019 and 2020 estimates are sourced from the West Coast Groundfish Observer Program (WCGOP) Groundfish Expanded Mortality Multi-year (GEMM) data product. 2021 estimated mortality is based on California Recreational Fishing Survey (CRFS) estimates through the end of 2021 (see [Agenda Item E.7.a, CDFW Report 1, March 2022](#)), and the 10-year maximum (2011-2020) estimates from

the trawl, non-trawl commercial, and off-the-top fisheries are from the WCGOP GEMM data product. The 10-year maximum was used as a proxy 2021 projection as there was partial observer coverage in 2020, and 2021 WCGOP mortality estimates are anticipated to be provided in September 2022.

**Table 1. Estimated total mortality of cowcod south of 40° 10' N. lat. from the trawl and non-trawl sectors compared to the ACTs.**

Year	Estimated total mortality (mt)	ACL (mt)	ACT (mt)	Percent attainment of ACT
2019	5.0	10	6	83%
2020*	5.8	10	n/a	n/a
2021**	14.6	84	50	29%

\*In June 2020, the ACT was removed and the directed fishery was managed under a Fishery Harvest Guideline (HG) of 9 mt ([85 FR 36803](#)). Estimated mortality was 64 percent of the Fishery HG.

\*\*Mortality estimates for the non-trawl sector projections, totaling 12.8 mt, are based on the 2020 WCGOP GEMM data product estimates for LEFG and OA sectors, and 2021 CFRS estimates. The 2021 non-trawl sector projections are approximately 40 percent of the 2021 non-trawl allocation (32 mt).

Under the low catch, low state of nature assumption in the cowcod 2019 decision table for the portion of the stock south of 34° 27' N. lat., the estimated percent unfished spawning biomass at the start of 2023 is projected to be 39.1 percent, just below the management target. The ACLs for cowcod south of 40° 10' N. lat. are projected to be 80 and 79 mt in 2023-24, respectively, approximately 30 percent below the Overfishing Limits (OFLs, 113 and 112 mt) due to high scientific uncertainty (i.e., category 2 and 3 default sigma values) and low overfishing risk tolerance (e.g., P\* of 0.4). Therefore, managing cowcod under the DHCR ACLs, determined using a P\* of 0.4 with zero retention in the non-trawl sector, would maintain a precautionary approach of buffering against potential negative future impacts on cowcod. Additionally, the Council may want to consider formalizing the 50:50 split of the non-trawl allocation with a specific accountability measure, such as sector-specific ACTs within the non-trawl sector, to reduce the risk of one sector utilizing more of the non-trawl allocation than the other sector. Further, the existing inseason monitoring tools will continue to be utilized to monitor cowcod mortality; those include monthly recreational tracking from the California Department of Fish & Wildlife's California Recreational Fisheries Survey, as well as the online/public PacFIN Groundfish Scorecard that tracks mortality projections against the cowcod ACL. The GMT also notes that the non-trawl logbooks that are slated for implementation in early 2023 will add to the team's ability to monitor commercial catches and discards inseason.

Table 2 shows the trawl and non-trawl allocations and non-trawl 50:50 split resulting from the 50 mt ACT (Option 1) and, alternatively, from removing the 50 mt ACT (Option 2). Option 2 would allocate an additional 6.8 mt to the trawl sector and an additional 12.1 mt to the non-trawl sector in 2023. The 2023 non-trawl allocation under Option 2 would increase each of the portions split to non-trawl commercial and to the recreational sector by 6 mt. The resulting 2024 sector allocations and portions split out to the non-trawl sector would decrease slightly from those of 2023, as the 2024 ACL decreases by 1 mt.

**Table 2. No Action (Option 1) and proposed (Option 2) allocations of the Fishery HG for Cowcod south of 40° 10' N. lat. in 2023-24.**

Option	Year	ACL (mt)	Set asides (mt)	Fishery HG (mt)	ACT (mt)	Trawl Alloc. 36% (mt)	Non-Trawl Alloc. 64%	
							Non-trawl commercial portion (mt)	Recreational portion (mt)
Opt 1	2023	80	11.17	68.8	50	18	16	16
	2024	79	11.17	67.8	50	18	16	16
Opt 2	2023	80	11.17	68.8	N/A	24.8	22	22
	2024	79	11.17	67.8	N/A	24.4	21.7	21.7

During the 2021-22 biennium, a 50 mt ACT on cowcod south of 40° 10' N. lat. afforded flexibility and opportunity to both the trawl and non-trawl sectors and coastal communities south of 40° 10' N. lat. by way of fewer depth restrictions, increased trip, and bag limits of other rockfish, and increased individual fishing quota vessel limits compared to previous years when cowcod was overfished. For 2023 and beyond, if the Council moves forward with adopting proposed Action Item 12e into the Harvest Specifications and Management Measures process and/or moves forward on the Non-Trawl Area Management agenda item, Option 1 could continue to provide some flexibility and opportunity should there be minimal additional effort offshore. However, the 50 mt ACT, and the non-trawl allocation resulting from the ACT, could become constraining if more of the non-trawl sector shifts their effort offshore to reduce impacts on nearshore rockfish species. For 2023 and beyond, Option 2 would allow for the expansion of opportunities farther offshore by reducing the potential for sector closures thus creating stability for the non-trawl sector and the coastal communities south of 40° 10' N. lat. Option 2 would also provide additional flexibility to the non-trawl sector to increase attainment of underutilized shelf, slope and other deep-water species.

Should the Council prefer to reconsider the use of the 50 mt ACT for cowcod in the 2023-24 Harvest Specifications and Management Measures process, then the Council would need to add the item to the Action Item Checklist, and may select it as their preliminary preferred alternative in April.

PFMC  
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