

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE FINAL REPORT ON 2022
GROUNDFISH HARVEST IN CALIFORNIA

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The California Department of Fish and Wildlife (CDFW) provides the following report on final harvest of select groundfish species of interest in 2022; a comprehensive reporting of groundfish mortality in California is found at the end of this report in Appendix I. All count values were rounded using standard rounding rules in each table for presentation purposes; for that reason, a sum of the rounded values over rows and columns within tables may not be equal to the total value.

CDFW will begin providing catch updates for 2023 at the April Council meeting. Future CDFW inseason reports will continue to include estimated take of quillback and copper rockfishes, in addition to the select groundfish species and complexes reported in 2022.

Recreational Fishery

Copper Rockfish

The final 2022 total mortality estimate for copper rockfish in the California recreational fishery is 63.6 mt. Beginning in 2022, a 1-fish sub-bag limit was implemented through inseason action to reduce fishery mortality. CDFW notes that the 2022 statewide total recreational catch was substantially lower than the CDFW’s November 2021 catch projection under a 1-fish bag limit of 137.4 mt when inseason action was taken (See Table 15: [November 2021 CDFW Inseason Report 2](#)).

A number of industry members report successful self-avoidance efforts, and CDFW is also aware that a portion of the Commercial Passenger Fishing Vessel (CPFV) fleet is strongly encouraging passengers not to retain any copper rockfish in order to minimize recreational mortality. The distribution of mortality by Management Area and mode (Figure 1), indicates the highest mortality in 2022 came from the Southern Management Area, and predominantly in the CPFV and private/rental boats mode.

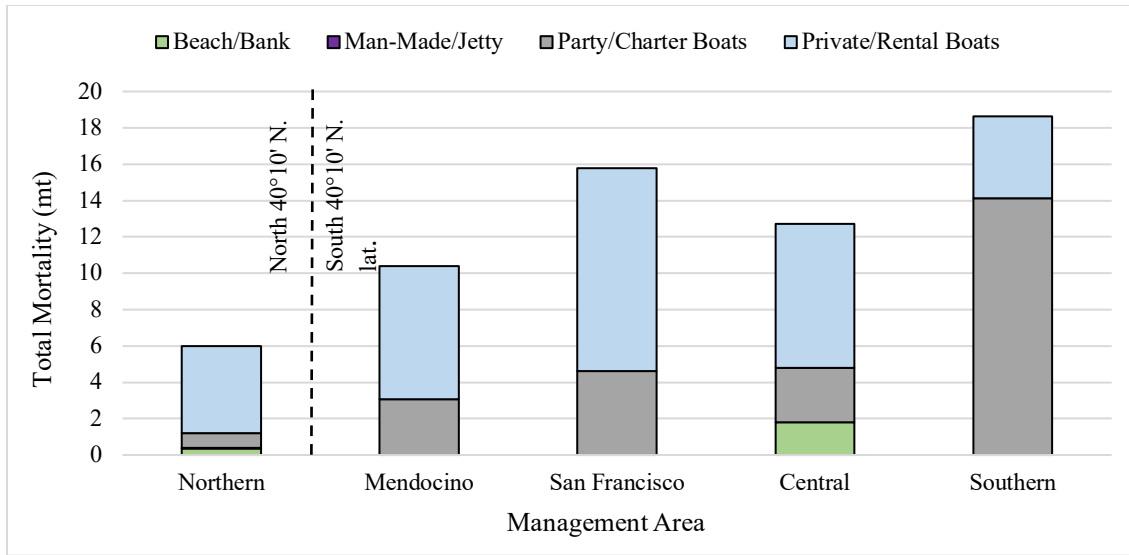


Figure 1. Recreational copper rockfish total mortality estimates (mt) by Management Area and fishing mode in 2022. Data are from California Recreational Fisheries Survey (CRFS)/CDFW.

Quillback Rockfish

The final 2022 total mortality estimate for quillback rockfish in the California recreational fishery is 9.2 mt; above the November 2021 projection of 8.3 mt (See Table 5: [November 2021 CDFW Inseason Report 2](#)). Prior to the implementation of the 1-fish sub-bag limit for quillback rockfish in 2022, most quillback rockfish retained in anglers' daily bag were one fish at a time; thus, a reduction in the bag limit to 1-fish was not expected to reduce catch as substantially as with copper rockfish. Quillback rockfish is a more northerly distributed species; the Mendocino Management Area had the highest mortality in 2022, followed by the Northern Management Area (Figure 2). The majority of catch is by private/rental boats, rather than CPFVs. Further adjustments to seasons and/or depth limits in 2023 may be required to reduce total mortality for quillback rockfish.

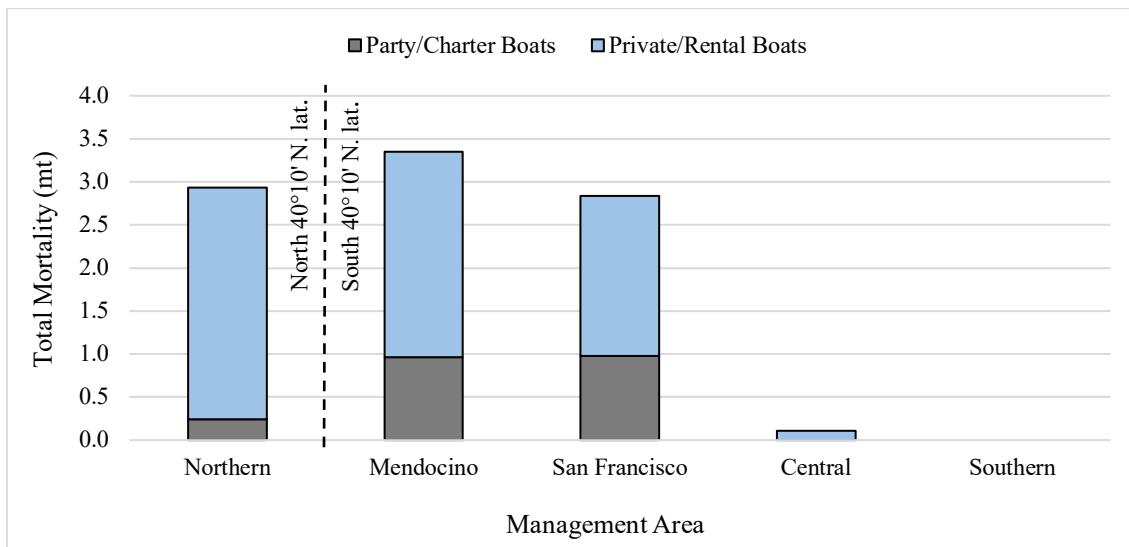


Figure 2. Recreational quillback rockfish total mortality estimates (mt) by Management Area and fishing mode for 2022. Data from CRFS/CDFW.

Yelloweye Rockfish

Yelloweye rockfish is the only remaining rebuilding rockfish species off the coast of California. The 2022 California recreational harvest guideline (HG) was 11.7 mt, with an Annual Catch Target (ACT) of 9.2 mt. Final 2022 recreational total mortality estimates (mt) for yelloweye rockfish are 3.8 mt, or 41 percent of the ACT.

Updated Discard Mortality Rates

CDFW incorporated the new depth-dependent discard mortality rates, developed by the Groundfish Management Team and approved for use in management by the Council, in the process of finalizing the 2022 recreational catch estimates. These new discard mortality rates incorporate the best available scientific information for select rockfish and are an improvement over the previously used surface release discard mortality rates. As expected, application of the new depth-dependent rates did not result in significant decreases to discard mortality or total mortality. The new method (depth-dependent rates) was compared to the old method (surface release mortality rates) for a number of select species, and is shown in Table 1. The two species with the largest discard mortality decrease using the new method were yelloweye rockfish and cowcod, two species with fairly low harvest limits and tracked closely in season. The discard mortality estimated for copper rockfish decreased by approximately 1 mt statewide using these new rates, which represents a very small fraction of the total recreational fishery mortality.

CDFW recognizes the improvements to the recreational catch data stream brought about by incorporating the new depth-dependent mortality rates for the rockfish guilds. However, CDFW notes that additional scientific work on survivorship at depth are unlikely to result in significant increased savings from reduced discard mortality. CDFW will continue its ongoing outreach efforts to increase anglers' knowledge of the effects of barotrauma on rockfish and the benefits of utilizing descending devices.

Table 1. Estimated discard mortality (mt) of select rockfish and rockfish groups in California for 2022 using the previous and new discard mortality rates. Data are from CDFW/CRFS.

Species	Original Discard Mortality (mt)	Updated Discard Mortality (mt)
YELLOWEYE ROCKFISH	3.6	2.7
CA Black rockfish	7.6	7.0
Canary rockfish	2.0	1.6
Nearshore rockfish N. 42°-40°10' N. lat.	1.1	0.9
Copper rockfish 42°-40°10' N. lat.	0.4	0.3
Quillback rockfish 42°-40°10' N. lat.	0.0	0.0
Shelf rockfish N. 40°10' N. lat.	0.0	0.0
Yellowtail rockfish N. 40°10' N. lat.	0.0	0.0
Nearshore rockfish S. 40°10' N. lat.	22.2	18.2
Copper rockfish S. 40°10' N. lat.	6.7	5.8
Quillback rockfish S. 40°10' N. lat.	0.0	0.0
Shelf rockfish S. 40°10' N. lat.	11.2	9.9

Species	Original Discard Mortality (mt)	Updated Discard Mortality (mt)
Vermilion rockfish S. 40°10' N. lat.	2.9	2.2
Bocaccio S. 40°10' N. lat.	0.0	0.0
Chilipepper S. 40°10' N. lat.	0.0	0.0
Cowcod S. 40°10' N. lat.	0.4	0.2

Non-Trawl Commercial Fishery (Deeper Nearshore)

Copper Rockfish

The 2022 cumulative landings in the area between 42° – 40°10' N. lat. are 0.2 mt over the 2022 landings projection of 0.6 mt from the [November 2021 CDFW Inseason Report 2](#) (Figure 3). While landings exceeded the projection of 0.6 mt, the 2022 landings were significantly less than in 2021 indicating the 75 pounds per 2-month trip limit was very effective in minimizing harvest of copper rockfish in the commercial nearshore fishery off Northern California.

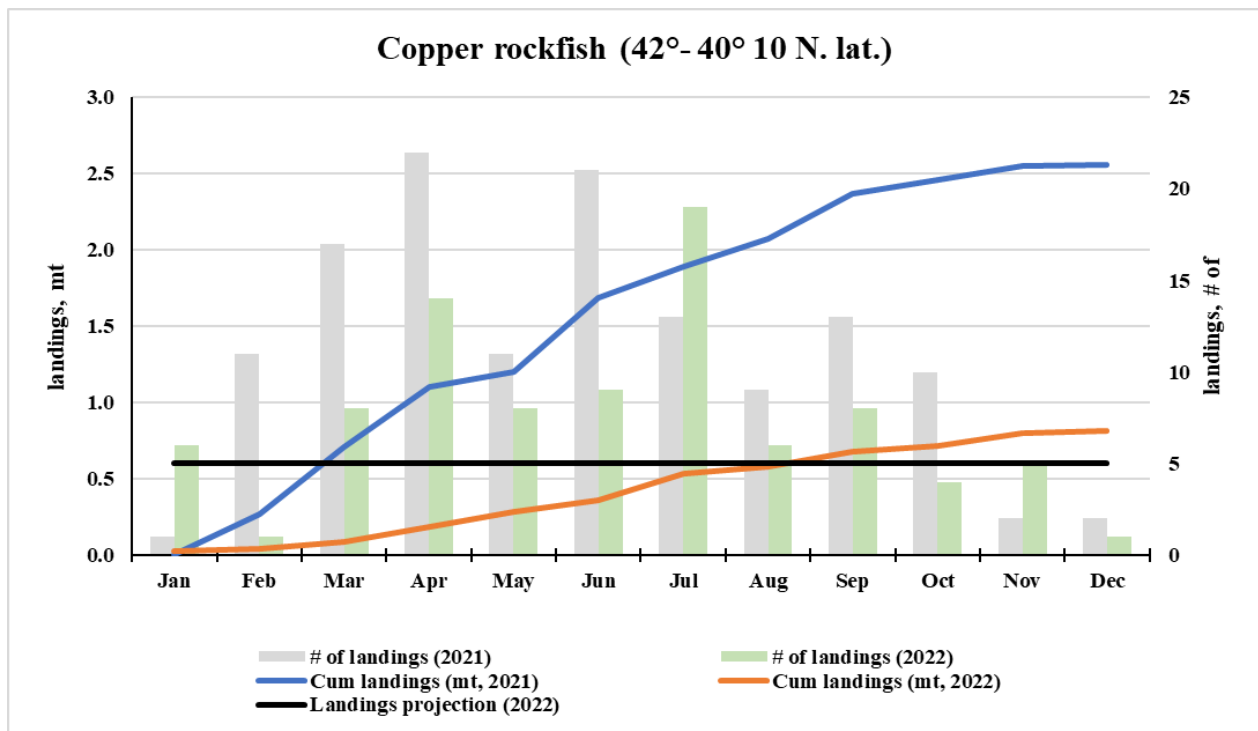


Figure 3. Copper rockfish cumulative commercial landings in 2021 (blue line) and 2022 (orange line) compared to the 2022 projected landing (black line), and number of landings in 2021 (gray bar) and 2022 (green bar) for the area between 42° – 40°10' N. lat. Data are from PacFIN, are preliminary and subject to change.

For south of 40°10' N. lat., the 2022 cumulative landings were 3 mt or approximately 86 percent of the 2022 landings projection of 3.5 mt from the [November 2021 CDFW Inseason Report 2](#) (Figure 4). Similar to what is seen in Figure 3 for Northern California landings of copper rockfish, the 75 pounds per 2-month trip limit was very effective in reducing harvest south of 40°10' N. lat.

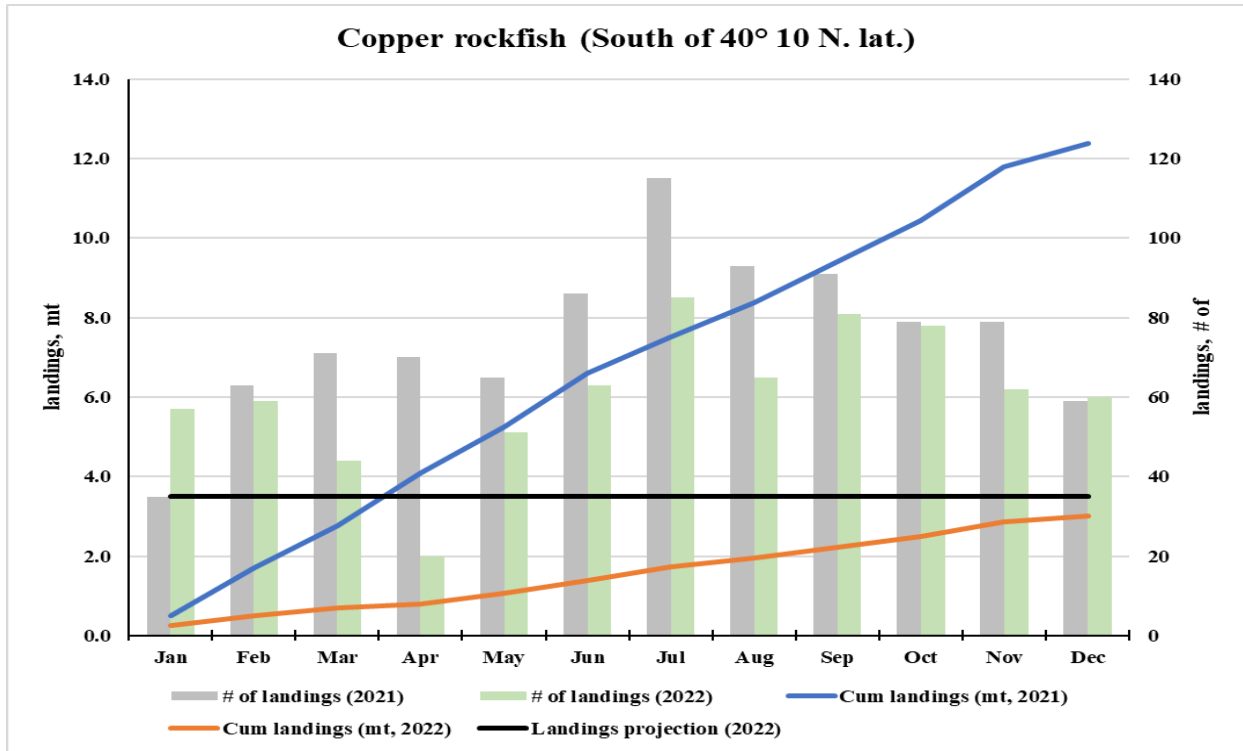


Figure 4. Copper rockfish cumulative commercial landings in 2021 (blue line) and 2022 (orange line) compared to the 2022 projected landing (black line), and number of landings in 2021 (gray bar) and 2022 (green bar) for south for 40° 10' N lat. Data are from PacFIN, are preliminary and subject to change.

Quillback Rockfish

Final cumulative landings through 2022, for quillback rockfish in the California commercial nearshore fishery were lower than projected for the sub-trip limits of 75 pounds per 2 months. For the area between 42°- 40° 10' N. lat., cumulative landings are 0.7 mt or approximately 69 percent of the landings projection of 1 mt (Figure 5). For south of 40° 10' N. lat., cumulative landings are 0.6 mt or approximately 57 percent of the landings projection of 1.1 mt (Figure 6). As noted above for copper rockfish the sub-trip limits for quillback rockfish indicate that they are effective in minimizing impacts on quillback rockfish.

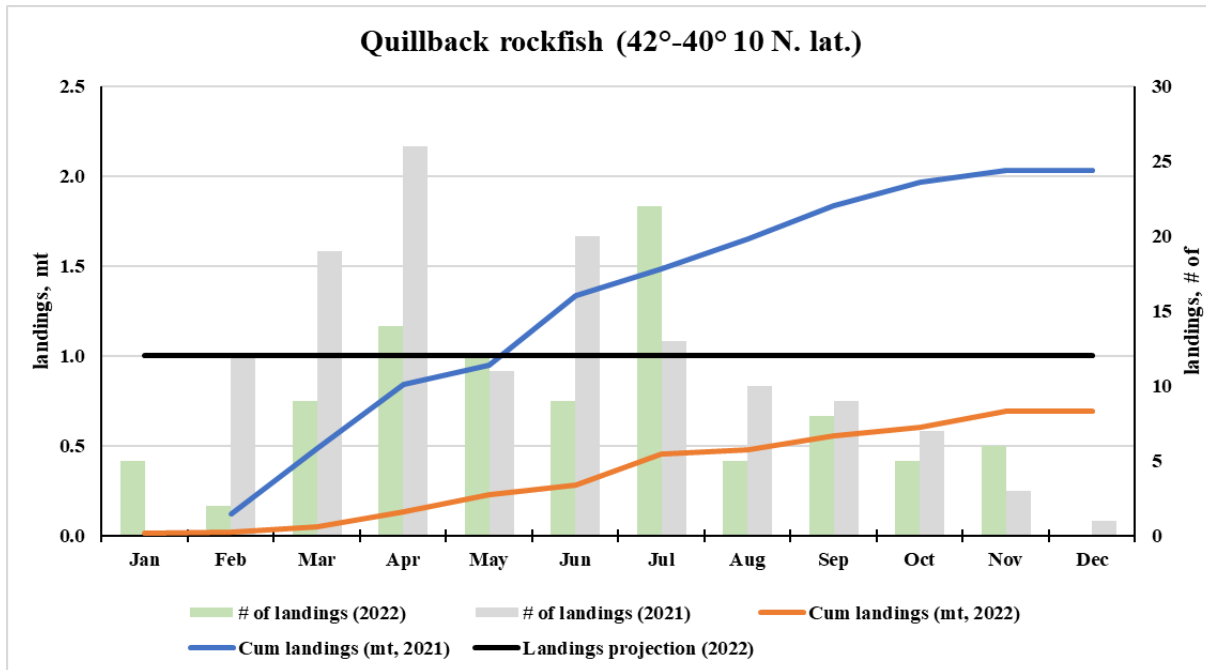


Figure 5. Quillback rockfish cumulative commercial landings in 2021 (blue line) and 2022 (orange line) compared to the 2022 projected landing (black line), and number of landings in 2021 (gray bar) and 2022 (green bar) for the area between 42° – 40° 10' N. lat. Data are from PacFIN, are preliminary and subject to change.

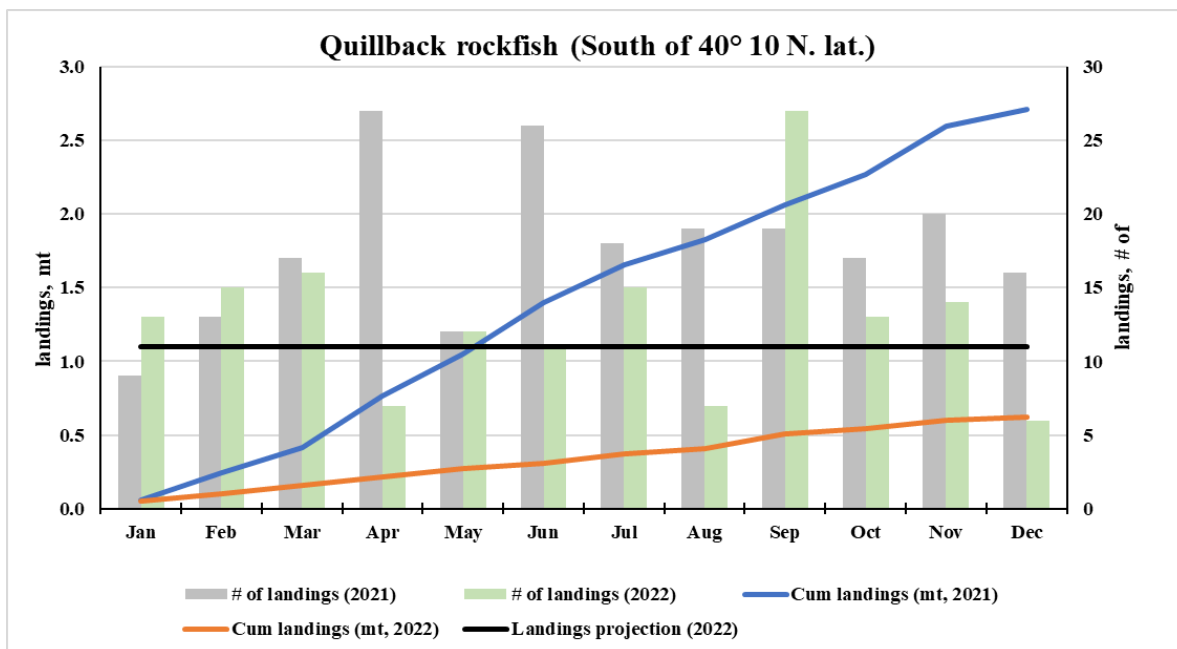


Figure 6. Quillback rockfish cumulative commercial landings in 2021 (blue line) and 2022 (orange line) compared to the 2022 projected landing (black line), and number of landings in 2021 (gray bar) and 2022 (green bar) for south for 40° 10' N lat. Data are from PacFIN, are preliminary and subject to change.

Other Deeper Nearshore Rockfish

Figure 7 and Figure 8 show the 2022 cumulative landings of the other deeper nearshore rockfish (i.e., black rockfish, blue rockfish, brown rockfish, calico rockfish, olive rockfish and treefish) continue to increase and 2022 landings tracked higher than 2021 landings, statewide. These figures illustrate that the participants in the commercial Deeper Nearshore fishery were able to shift their effort and effectively target the other deeper nearshore rockfish while avoiding species of concern.

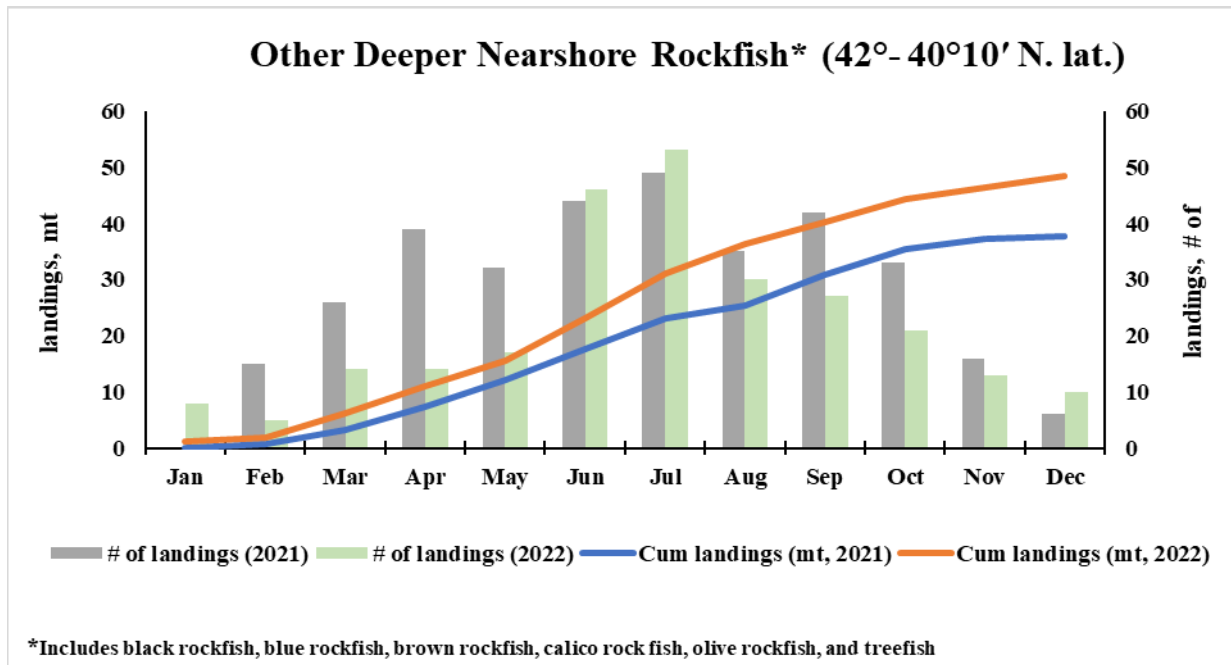


Figure 7. Other deeper nearshore rockfish cumulative commercial landings in 2021 (blue line) and 2022 (orange line) compared to the 2022 projected landing (black line), and number of landings in 2021 (gray bar) and 2022 (green bar) for the area between 42° – 40°10' N. lat. Data are from PacFIN, are preliminary and subject to change.

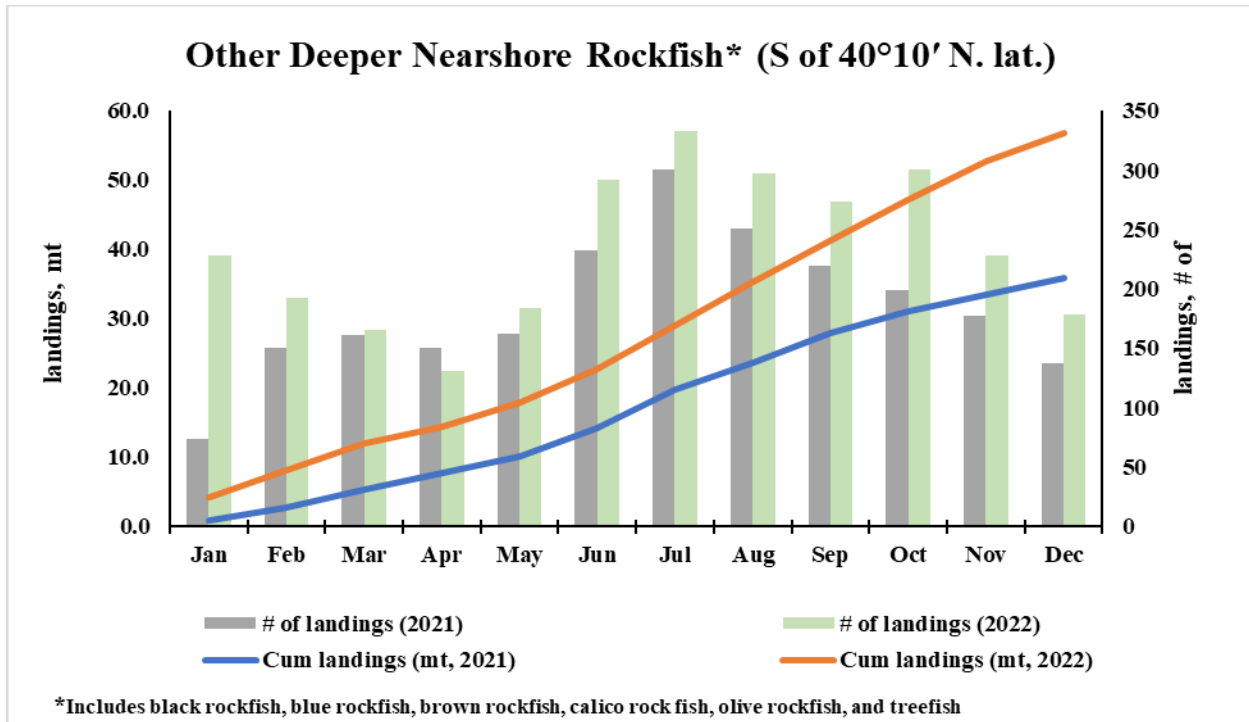


Figure 8. Other deeper nearshore rockfish cumulative commercial landings in 2021 (blue line) and 2022 (orange line) compared to the 2022 projected landing (black line), and number of landings in 2021 (gray bar) and 2022 (green bar) for south for 40° 10' N lat. Data are from PacFIN, are preliminary and subject to change.

Appendix I

This appendix provides an update of the full 2022 fishing season relative to Annual Catch Limits (ACLs), Harvest Guidelines (HGs), sector allocations, and Annual Catch Targets (ACTs) for the 2021-22 biennium. Catch includes estimates of total mortality from the recreational sector, and landings from the commercial sector without discard mortality. Commercial landings are from the non-trawl fixed gear limited entry and open access sectors, except for blackgill rockfish landings which include both trawl and non-trawl landings.

Monthly recreational catch data are from RecFIN through December 2022 and reflect activity across all recreational management areas (Table 2). Commercial landings data are from PacFIN and reflect activity across all management areas from January through December (Table 3). The 2022 combined recreational and commercial catches are compared to federally designated harvest specifications in Table 4.

Four species line items in Table 4 reflect overages in 2022 catch compared to 2022 reference points. Copper and quillback rockfishes North of 40°10' N. lat., quillback rockfish South of 40°10' N. lat., and vermilion rockfish South of 40°10' N. lat. are all above their respective species-specific California contribution to an ACL contribution or ACL contribution to their stock complexes. CDFW notes these reference points and the fishery regulations have changed in 2023, in response to incorporating the new 2021 assessments into the specifications and fishery management measures.

Table 2. Estimated catch (mt) of select groundfish species in the California recreational sector by month in 2022. Data are from RecFIN, are preliminary and subject to change.

Stock/Stock Complex	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
YELLOWEYE ROCKFISH	-	-	-	0.1	0.2	0.3	0.7	0.5	0.8	0.3	0.5	0.4	3.8
CA Black rockfish	0.0	0.3	0.0	2.0	11.1	35.1	59.6	43.9	29.1	15.5	10.3	5.1	212.1
Canary rockfish	0.0	-	0.7	1.8	2.7	7.6	9.1	10.9	12.7	6.2	6.4	5.2	63.2
Darkblotched rockfish	-	-	-	-	-	-	-	-	-	-	-	-	0.0
Shortbelly rockfish	-	-	-	-	-	-	-	-	-	-	-	-	0.0
Splitnose rockfish	-	-	-	-	-	-	-	-	-	-	-	-	0.0
Widow rockfish	-	-	1.8	0.1	0.1	0.1	3.1	0.8	0.4	0.2	0.4	0.6	7.5
Spiny dogfish	0.1	-	0.0	0.0	0.0	0.1	0.3	0.3	0.0	0.0	0.0	-	0.9
Dover sole	-	-	-	-	-	-	-	-	-	-	-	-	0.0
English sole	-	-	-	-	-	-	-	-	-	-	-	-	0.0
Petrale sole	0.1	0.4	0.1	0.1	0.0	0.1	1.5	0.7	0.4	0.3	0.2	0.1	3.9
Starry flounder	-	0.0	0.0	-	0.0	0.0	0.1	0.1	0.0	0.0	-	0.0	0.2
Other flatfish	1.1	2.2	2.0	0.7	0.4	3.0	8.7	5.9	3.9	2.3	1.3	1.3	32.7
CA Cabezon	0.6	1.3	1.2	1.2	2.1	3.5	5.9	7.4	6.0	4.7	3.0	2.0	38.8
CA Kelp greenling	0.1	0.4	0.1	0.5	0.2	0.5	0.8	0.5	0.7	0.7	0.8	0.3	5.5
Nearshore rockfish N. 42°- 40°10' N. lat. ^a	0.1	0.0	0.3	0.0	1.2	2.3	5.2	4.2	3.0	2.1	1.6	4.2	24.3
Copper rockfish 42°- 40°10' N. lat.	0.0	0.0	0.3	0.0	0.3	0.9	1.7	1.2	0.7	0.5	0.3	0.2	6.0
Quillback rockfish 42°- 40°10' N. lat.	-	-	-	-	0.1	0.3	1.0	0.8	0.3	0.2	0.2	0.1	2.9
Shelf rockfish N. 40°10' N. lat.	-	-	-	0.0	0.4	0.7	1.7	1.1	0.8	0.5	0.5	0.5	6.1
Yellowtail rockfish N. 40°10' N. lat.	-	-	-	-	0.0	0.0	0.3	0.4	0.1	0.1	0.0	0.3	1.2
Slope rockfish N. 40°10' N. lat.	-	-	-	-	-	-	-	-	-	-	-	-	0.0
Lingcod N. 40°10' N. lat.	0.0	0.1	0.1	0.2	3.0	5.5	13.9	9.0	7.0	4.1	3.5	2.9	49.3
Nearshore rockfish S. 40°10' N. lat. ^a	0.3	0.4	9.0	16.9	24.0	49.6	63.3	58.1	77.5	51.5	44.8	26.3	421.5
Copper rockfish S. 40°10' N. lat.	0.0	0.0	4.6	1.6	2.7	7.4	7.9	7.3	9.9	5.6	5.3	5.4	57.6
Quillback rockfish S. 40°10' N. lat.	-	-	-	0.0	0.1	0.3	1.0	0.7	1.8	0.8	1.0	0.5	6.3
CA scorpionfish	7.2	5.8	5.5	6.3	16.3	40.2	25.5	10.0	3.3	4.0	3.1	3.1	130.2
Shelf rockfish S. 40°10' N. lat. ^b	0.0	0.1	19.9	26.2	24.4	33.5	45.9	44.4	42.4	45.7	39.5	39.8	361.7

Stock/Stock Complex	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
Vermilion rockfish S. 40°10' N. lat.	0.0	0.1	12.0	16.9	13.7	19.2	27.0	30.3	26.9	22.8	18.8	15.2	202.9
Bocaccio S. 40°10' N. lat.	0.0	0.0	4.5	7.3	6.6	11.4	11.2	20.6	12.1	7.3	8.2	11.6	101.0
Chilipepper S. 40°10' N. lat.	0.0	-	0.6	0.3	0.3	1.1	0.3	0.2	0.1	0.2	0.4	1.4	4.7
Cowcod S. 40°10' N. lat.	-	-	0.3	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.3
Slope rockfish S. 40°10' N. lat. °	-	-	0.1	0.1	-	-	-	0.0	0.0	0.0	-	0.0	0.4
Lingcod S. 40°10' N. lat.	0.1	0.3	1.7	4.8	9.4	15.0	36.2	30.7	42.9	37.0	30.5	17.1	225.7
Sablefish N. 36° N. lat.	0.0	-	0.0	-	0.0	0.0	0.4	0.1	0.0	0.0	0.1	0.0	0.7
Sablefish S. 36° N. lat.	-	-	0.0	-	1.0	-	0.0	-	-	-	-	-	1.0
Longspine thornyhead N 34° 27' N. lat.	-	-	-	-	-	-	-	-	-	-	-	-	0.0
Longspine thornyhead S 34° 27' N. lat.	-	-	-	-	-	-	-	-	-	-	-	-	0.0
Shortspine thornyhead N 34° 27' N. lat.	-	-	-	-	-	-	-	-	-	-	-	-	0.0
Shortspine thornyhead S 34° 27' N. lat.	-	-	-	-	-	-	-	-	-	-	-	-	0.0

Note: 0.0 indicates trace mortality; a dash (-) indicates no mortality.

a/ Includes catch of copper rockfish and quillback rockfish.

b/ Includes catch of vermilion rockfish.

c/ Does not include catch of blackgill rockfish south of 40°10' N. lat. due to a separate harvest limit from the slope rockfish complex south of 40°10' N. lat.

Table 3. Estimated landings (mt) of select groundfish species in California commercial non-trawl fixed gear limited entry and open access sectors, except for blackgill rockfish landings which include trawl and non-trawl, by month in 2022. Data are from PacFIN, are preliminary and subject to change.

Stock/Stock Complex	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
YELLOWEYE ROCKFISH	--	--	--	--	--	--	--	--	--	--	--	0.0	0.0
CA Black rockfish	2.2	1.2	5.3	5.3	4.7	8.1	9.6	6.0	4.2	4.1	2.8	2.0	55.5
Canary rockfish	1.6	2.4	1.7	1.0	1.2	2.1	2.0	1.8	2.2	1.7	2.4	1.3	21.5
Darkblotched rockfish	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.1	0.3	0.0	--	--	0.9
Shortbelly rockfish		--	--	--	--	--	--	--	0.0	--	--	--	0.0
Splitnose rockfish		0.0	0.0	0.0	0.0	--	0.0	0.0	--	--	0.0	--	0.0
Widow rockfish	0.8	0.6	0.4	0.4	0.7	0.8	1.0	0.8	0.8	0.7	0.9	0.6	8.4
Spiny dogfish	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.8
Dover sole	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.7
English sole		--	--	--	--	--	--	0.0	--	--	0.0	--	0.0
Petrale sole	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.0	1.1
Starry flounder		0.0	--	--	--	--	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Other flatfish	0.0	0.0	0.1	0.3	0.2	0.4	0.3	0.4	0.4	0.4	0.4	0.3	3.3
CA Cabezon	3.3	1.8	1.0	1.1	2.0	4.1	4.8	3.5	3.3	4.2	2.4	2.4	33.7
CA Kelp greenling	0.4	0.3	0.2	0.2	0.2	0.5	0.3	0.2	0.2	0.3	0.3	0.2	3.3
Nearshore rockfish N. 42°- 40°10' N. lat. ^a	0.5	0.2	0.5	0.5	0.4	1.4	1.1	0.8	0.9	0.7	0.7	0.4	8.0
Copper rockfish 42°- 40°10' N. lat.	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.1	0.0	0.1	0.0	0.8
Quillback rockfish 42°- 40°10' N. lat.	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.1	--	0.7
Shelf rockfish N. 40°10' N. lat.	0.2	0.1	0.2	0.1	0.1	0.4	0.4	0.2	0.1	0.2	0.1	0.1	2.4
Yellowtail rockfish N. 40°10' N. lat.	0.4	0.3	0.2	0.4	0.3	1.0	1.0	0.9	0.6	0.3	0.4	0.4	6.2
Slope rockfish N. 40°10' N. lat.		0.1	0.5	0.2	0.2	2.2	1.6	0.9	3.2	0.5	0.0	0.0	9.4
Lingcod N. 40°10' N. lat.	1.6	1.0	1.2	1.2	1.0	2.4	2.4	2.6	1.8	3.0	2.3	1.9	22.4
Nearshore rockfish S. 40°10' N. lat. ^a	7.5	6.7	4.9	3.0	6.0	10.3	12.2	13.5	11.7	12.8	9.2	8.4	106.3
Copper rockfish S. 40°10' N. lat.	0.3	0.2	0.2	0.1	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.1	2.9
Quillback rockfish S. 40°10' N. lat.	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.6
CA scorpionfish	0.0	0.0	0.0	0.2	0.3	0.5	0.4	0.3	0.0	0.0	0.0	0.0	1.7

Stock/Stock Complex	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
Shelf rockfish S. 40°10' N. lat. ^b	9.3	8.8	6.7	7.1	11.2	11.3	9.4	11.5	12.9	12.9	10.6	12.4	124.2
Vermilion rockfish S. 40°10' N. lat.	6.4	5.9	4.5	5.1	8.4	7.9	6.8	8.0	8.8	7.5	6.8	8.9	85.0
Bocaccio S. 40°10' N. lat.	5.6	4.8	1.9	2.9	3.7	4.3	3.6	4.5	4.4	5.2	5.7	3.6	50.2
Chilipepper S. 40°10' N. lat.	6.0	2.4	2.7	1.6	3.1	4.6	3.8	3.6	2.6	3.6	3.0	2.3	39.4
Cowcod S. 40°10' N. lat.	--	--	--	--	--	--	--	--	--	--	--	--	--
Slope rockfish S. 40°10' N. lat. ^c	0.6	0.5	0.1	0.3	0.1	0.4	0.2	0.5	1.8	2.5	0.3	0.2	7.4
Blackgill rockfish S. 40°10' N. lat. ^d	7.6	4.2	2.9	0.9	0.8	2.6	1.8	4.2	3.6	8.9	7.3	15.2	60.0
Lingcod S. 40°10' N. lat.	1.6	1.0	1.2	1.2	1.0	2.4	2.4	2.6	1.8	3.0	2.3	1.9	22.4
Sablefish N. 36° N. lat.	34.2	38.9	50.0	63.5	49.6	67.6	67.1	84.9	150.2	215.9	108.7	55.5	986.0
Sablefish S. 36° N. lat.	34.4	24.9	14.5	15.6	25.1	23.5	21.6	27.9	25.3	29.0	17.2	29.9	289.0
Longspine thornyhead N 34° 27' N. lat.	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.2	2.3
Longspine thornyhead S 34° 27' N. lat.	0.7	0.3	0.5	0.5	0.7	0.6	0.5	0.4	0.6	0.5	0.6	0.5	6.4
Shortspine thornyhead N 34° 27' N. lat.	2.1	1.5	1.8	1.3	1.2	1.4	2.4	1.5	1.9	1.9	1.8	2.3	21.2
Shortspine thornyhead S 34° 27' N. lat.	4.4	3.9	3.7	2.1	3.0	2.8	1.5	2.5	2.9	2.1	1.8	2.8	33.5

Note: Landing estimates do not include discard mortality. 0.0 indicates trace landings; a dash (-) indicates no landings.

a/ Includes landings of copper rockfish and quillback rockfish.

b/ Includes landings of vermilion rockfish.

c/ Does not include landings of blackgill rockfish south of 40°10' N. lat. due to a separate harvest limit from the slope rockfish complex south of 40°10' N. lat.

d/ Blackgill rockfish south of 40°10' N. lat. landings include both trawl and non-trawl sector.

Table 4. Estimated take (mt) of select groundfish species in California for 2022 compared to the harvest limits for 2022.

Stock/Stock Complex	Reference Point	Recreational Mortality (mt)	Commercial Landings (mt)	Total (mt)	Tracking Limits	Percent Attainment
YELLOWEYE ROCKFISH	ACT (CA rec)	3.8	See Table 3	3.8	9.2	41.3%
CA Black rockfish	ACL	212.1	55.5	267.6	338.7	79.0%
Canary rockfish	HG (rec)	63.2	See Table 3	63.2	113.9	55.5%
Darkblotched rockfish	Non-Trawl Allocation	0.0	0.9	0.9	40.6	2.2%
Shortbelly rockfish	^a	--	0.0	0.0	NA	-
Splitnose rockfish	Non-Trawl Allocation	0.0	0.0	0.0	80.6	0.0%
Widow rockfish	Non-Trawl Allocation	7.5	8.4	15.9	400	4.0%
Spiny dogfish	Non-Trawl Allocation	0.9	0.8	1.7	1,585.20	0.1%
Dover sole	Non-Trawl Allocation	0.0	0.7	0.7	2,420.10	0.0%
English sole	Non-Trawl Allocation	0.0	0.0	0.0	442.5	0.0%
Petrale sole	Non-Trawl Allocation	3.9	1.1	5.0	30	16.8%
Starry flounder	Non-Trawl Allocation	0.2	0.1	0.3	171.8	0.2%
Other flatfish	Non-Trawl Allocation	32.7	3.3	36.0	461.7	7.8%
CA Cabezon	ACL	38.8	33.7	72.5	195	37.2%
CA Kelp greenling	^b	5.5	3.3	8.8	92.5	9.5%
Nearshore rockfish N. 42°-40°10' N. lat. ^c	HG (CA Share) ^d	24.3	8.0	32.3	37.6	86.4%
Copper rockfish 42°-40°10' N. lat.	ACL Contribution to Complex	6.0	0.8	6.80	2.0	340.0%
Quillback rockfish 42°-40°10' N. lat.	ACL Contribution to Complex	2.9	0.7	3.6	1.6	227.2%
Shelf rockfish N. 40°10' N. lat.	Non-Trawl Allocation	6.1	2.4	8.5	548.3	1.6%
Yellowtail rockfish N. 40°10' N. lat.	ACL	1.2	6.2	7.4	575.2	1.3%
Slope rockfish N. 40°10' N. lat.	Non-Trawl Allocation	0.0	9.4	9.4	285.4	3.3%
Lingcod N. 40°10' N. lat.	Non-Trawl Allocation	49.3	22.4	71.7	2,573.80	2.8%
Nearshore rockfish S. 40°10' N. lat. ^c	ACL	421.5	106.3	527.8	1,010	52.3%
Copper rockfish S. 40°10' N. lat.	ACL Contribution to Complex	57.6	2.9	60.5	202	29.9%
Quillback rockfish S. 40°10' N. lat.	ACL Contribution to Complex	6.3	0.6	6.9	4.2	164.2%
CA scorpionfish	ACL	130.2	1.7	131.9	275	48.0%
Shelf rockfish S. 40°10' N. lat. ^c	Non-Trawl Allocation	361.7	124.2	485.9	1137.2	42.7%

Stock/Stock Complex	Reference Point	Recreational Mortality (mt)	Commercial Landings (mt)	Total (mt)	Tracking Limit	Percent Attainment
Vermilion rockfish S. 40°10' N. lat.	ACL Contribution to Complex	202.9	85.0	287.9	209.5	137.4%
Bocaccio S. 40°10' N. lat.	Non-Trawl Allocation	101.0	50.2	151.2	1,021.80	14.8%
Chilipepper S. 40°10' N. lat.	Non-Trawl Allocation	4.7	39.4	44.1	540.3	8.2%
Cowcod S. 40°10' N. lat.	Non-Trawl Allocation	0.3	See Table 3	0.3	16.0	1.7%
Slope rockfish S. 40°10' N. lat. ^f	Non-Trawl Allocation	0.4	7.4	7.8	142.2	5.5%
Blackgill rockfish S. 40°10' N. lat. ^g	HG	0.0	60.0	60.0	174	34.5%
Lingcod S. 40°10' N. lat.	Non-Trawl Allocation	225.7	22.4	248.1	695.4	35.7%
Sablefish N. 36° N. lat.	Non-Trawl Allocation	0.7	986.0	986.7	6,566	15.0%
Sablefish S. 36° N. lat.	Non-Trawl Allocation	1.0	289.0	290.0	1,809	16.0%
Longspine thornyhead N 34° 27' N. lat.	Non-Trawl Allocation	0.0	2.3	2.3	119.9	1.9%
Longspine thornyhead S 34° 27' N. lat.	ACL	0.0	6.4	6.4	774	0.8%
Shortspine thornyhead N 34° 27' N. lat.	Non-Trawl Allocation	0.0	21.2	21.2	65.73	32.3%
Shortspine thornyhead S 34° 27' N. lat.	Non-Trawl Allocation	0.0	33.5	33.5	680.3	4.9%

Note: 0.0 indicates trace take; a dash (-) indicates no take.

a/ Shortbelly rockfish is an ecosystem component species and does not have a harvest limit.

b/ Reference point denotes the CA kelp greenling contribution to the Other Fish complex ACL.

c/ Includes catch of copper rockfish and quillback rockfish.

d/ The nearshore complex north of 40°10' N lat. HG is 77 mt. The CA share of the HG is 37.4 mt.

e/ Includes catch of vermilion rockfish.

f/ Does not include blackgill rockfish landings south of 40°10' N. lat. due to a separate harvest limit from the slope rockfish complex south of 40°10' N. lat.

g/ Blackgill rockfish south of 40°10' N. lat. commercial landings include both trawl and non-trawl sectors.