

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REPORT ON 2022 GROUND FISH HARVEST IN CALIFORNIA

The California Department of Fish and Wildlife (CDFW) provides the following informational report on harvest of select groundfish species. This report provides an update on the status of the 2022 fishing season relative to Annual Catch Limits (ACLs), Harvest Guidelines (HGs), sector allocations, and Annual Catch Targets (ACTs) in effect for the 2021-22 biennium.

In this report, catch includes estimates of total mortality from the recreational sector, and landings from the commercial non-trawl sector without discard mortality. Additional species have been included in 2022 (e.g., quillback rockfish, copper rockfish, thornyheads, and sablefish) to provide a more comprehensive update on non-trawl groundfish catch in California. Commercial landings are from the non-trawl fixed gear limited entry and open access sectors, except for blackgill rockfish landings which both include trawl and non-trawl landings. The 2022 combined recreational and commercial catches compared to federally designated harvest specifications as shown in Table 1 and are within allowable levels.

Monthly recreational catch data are from RecFIN through March 2022 and reflect activity across all recreational management areas (Table 2). The boat-based recreational groundfish fishery opened March 1 in the Southern Management Area (south of 34° 27' N. lat. to the US/Mex border), April 1 in the San Francisco and Central Management Areas (between 38° 57.5' N. lat. and 34° 27' N. lat.) and May 1 in the Northern and Mendocino Management Areas (between the OR/CA border and 38° 57.5' N. lat.). Recreational catch information for 2022 reflects the reductions to bag limits for vermilion rockfish, quillback rockfish, and copper rockfish, which became effective January 1, 2022.

In addition to monthly catch tracking, several rockfish species of concern (yelloweye rockfish, copper rockfish, quillback rockfish, and black rockfish) are tracked on a weekly basis using preliminary California Recreational Fisheries Survey (CRFS) reports. Beginning in 2022, the list of species was modified to include quillback and copper rockfish as a result of new stock status information from 2021. Preliminary CRFS reports are converted into an anticipated catch value (ACV) in metric tons using catch and effort data from previous years. Weekly ACV data are used as "proxy" values to approximate catch during the five-to-eight-week lag time between when data are collected and CRFS catch estimates become available, at which time the ACV value is replaced with the CRFS catch estimate for that month.

ACVs through May 29 are available and indicate 11.3 mt of copper rockfish S 40°10' N. lat. and 0.9 mt of copper rockfish between the OR/CA border and 40°10' N. lat. have been taken to date (Table 3). The statewide ACV for quillback rockfish through May 29 is 0.4 mt, with 0.3 mt from the area between the OR/CA border and 40°10' N. lat., and 0.1 mt from S 40°10' N. lat. (Table 4). While it is still too early in the year to determine the impact the bag limit reductions will have on overall mortality, preliminary totals of sampled copper and quillback rockfish compared to prior years, when no sub-bag limit was in effect are significantly less in 2022.

To date, ACVs have been an effective and reliable tool to closely monitor recreational inseason mortality on a weekly basis, and CDFW has used this tool since 2008. Because significant changes to recreational bag limits for quillback and copper rockfish were made for 2022, it is

expected the ACVs produced for these species this year may over-project impacts compared to the monthly CRFS catch estimates. However, CDFW believes the ACV process for these species will still be a valuable inseason catch tracking tool in 2022 and beyond.

Commercial landings data are from PacFIN and reflect activity across all management areas from January through May (Table 5). Cumulative landings, thus far, in 2022 are similar to 2021 for most species. However, for select nearshore species (black rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, gopher rockfish, cabezon, and kelp greenling), select shelf rockfish (bocaccio and chilipepper south of 40° 10' and widow rockfish), and blackgill rockfish south of 40° 10' N. lat, cumulative landings are tracking higher this year compared to 2021.

For copper rockfish and quillback rockfish, cumulative commercial landings continue to track lower in 2022 than in 2021, suggesting the sub-trip limits are effectively minimizing harvest in the commercial fishery. Figure 1 shows the year-to-date and 2021 cumulative landings of copper rockfish compared the 2022 landings projection reported in Agenda Item E.7.a Supplemental CDFW Report 2, November 2021, as well as the number of copper rockfish landings, year-to-date and 2021. Figure 2 shows the year-to-date cumulative landings of quillback rockfish compared to the 2021 cumulative landings and the 2022 landings projection also reported in the November 2021 Supplemental CDFW Report 2, as well as the number of quillback rockfish landings, year-to-date and 2021.

Figure 3 shows the year-to-date and 2021 cumulative landings of the other deeper nearshore rockfish (i.e., black rockfish, blue rockfish, brown rockfish, calico rockfish, olive rockfish and treefish), as well as the number of other deeper nearshore landings, year-to-date and 2021. In 2022 thus far, landings of the other deeper nearshore species are comparable to landings in 2021, suggesting that despite the constraining trip limits for copper and quillback rockfish, the other deeper nearshore rockfish can still be targeted effectively. CDFW will provide additional catch updates throughout 2022 as seasons progress. Reported catches are subject to change as more data becomes available.

Table 1. 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 Limit	Percent Attainment
YELLOWEYE ROCKFISH	ACT (CA rec)	0.0	See Table 5	0.0	9.2	0.0%
CA Black rockfish	ACL	0.6	18.6	19.2	338.7	5.7%
Canary rockfish	HG (rec)	0.1	See Table 5	0.1	113.9	0.0%
Darkblotched rockfish	Non-Trawl Allocation	0.0	0.3	0.3	40.6	0.7%
Shortbelly rockfish	^a	0.0	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	1.9	2.8	4.7	400	1.2%
Spiny dogfish	Non-Trawl Allocation	0.0	0.1	0.1	1,585.20	0.0%
Dover sole	Non-Trawl Allocation	0.0	0.0	0.0	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	0.5	0.2	0.7	30	2.4%
Starry flounder	Non-Trawl Allocation	0.0	0.0	0.0	171.8	0.0%
Other flatfish	Non-Trawl Allocation	4.9	0.5	5.4	461.7	1.2%
CA Cabezon	ACL	2.6	8.7	11.3	195	5.8%
CA Kelp greenling	^b	0.6	1.3	1.9	92.5	2.0%
Nearshore rockfish N. 42°-40°10' N. lat. ^c	HG (CA Share) ^d	0.4	2.1	2.5	37.4	6.6%
Copper rockfish 42°-40°10' N. lat.	ACL Contribution to Complex	0.3	0.2	0.5	2	25.0%
Quillback rockfish 42°-40°10' N. lat.	ACL Contribution to Complex	0.0	0.2	0.2	1.6	12.5%
Shelf rockfish N. 40°10' N. lat.	Non-Trawl Allocation	0.0	0.7	0.7	548.3	0.1%
Yellowtail rockfish N. 40°10' N. lat.	ACL	0.0	1.6	1.6	575.2	0.3%
Slope rockfish N. 40°10' N. lat.	Non-Trawl Allocation	0.0	0.8	0.8	285.4	0.3%
Lingcod N. 40°10' N. lat.	Non-Trawl Allocation	0.2	6.0	6.2	2,573.80	0.2%
Nearshore rockfish S. 40°10' N. lat. ^c	ACL	10.1	26.9	37.0	1,010	3.7%
Copper rockfish S. 40°10' N. lat.	ACL Contribution to Complex	4.9	1.0	5.9	202	2.9%
Quillback rockfish S. 40°10' N. lat.	ACL Contribution to Complex	0.0	0.4	0.4	4.2	9.5%
CA scorpionfish	ACL	16.2	0.5	16.7	275	6.1%
Shelf rockfish S. 40°10' N. lat. ^c	Non-Trawl Allocation	20.1	41.0	61.1	1137.2	5.4%

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	12.2	29.9	42.1	209.5	20.1%
Bocaccio S. 40°10' N. lat.	Non-Trawl Allocation	4.5	17.8	22.3	1,021.80	2.2%
Chilipepper S. 40°10' N. lat.	Non-Trawl Allocation	0.0	15.7	15.7	540.3	2.9%
Cowcod S. 40°10' N. lat.	Non-Trawl Allocation	0.4	See Table 5	0.4	16	2.2%
Slope rockfish S. 40°10' N. lat. ^f	Non-Trawl Allocation	0.1	1.8	1.9	142.2	1.4%
Blackgill rockfish S. 40°10' N. lat. ^g	HG	0.0	16.8	16.8	174	9.7%
Lingcod S. 40°10' N. lat.	Non-Trawl Allocation	2.0	11.4	13.4	695.4	1.9%
Sablefish N. 36° N. lat.	Non-Trawl Allocation	0.0	184.6	184.6	6,566	2.8%
Sablefish S. 36° N. lat.	Non-Trawl Allocation	0.0	73.4	73.4	1,809	4.1%
Longspine thornyhead N 34° 27' N. lat.	Non-Trawl Allocation	0.0	0.8	0.8	119.9	0.7%
Longspine thornyhead S 34° 27' N. lat.	ACL	0.0	2.6	2.6	774	0.3%
Shortspine thornyhead N 34° 27' N. lat.	Non-Trawl Allocation	0.0	7.9	7.9	65.73	12.0%
Shortspine thornyhead S 34° 27' N. lat.	Non-Trawl Allocation	0.0	16.6	16.6	680.3	2.4%

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

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 ¹	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
YELLOWEYE ROCKFISH	-	-	-										-
CA Black rockfish	0.3	0.3	0.1										0.7
Canary rockfish	-	-	0.1										0.1
Darkblotched rockfish	-	-	-										-
Shortbelly rockfish	-	-	-										-
Splitnose rockfish	-	-	-										-
Widow rockfish	-	-	1.9										1.9
Spiny dogfish	0.0	-	0.0										0.0
Dover sole	-	-	-										-
English sole	-	-	-										-
Petrale sole	0.1	0.4	0.1										0.6
Starry flounder	-	0.0	0.0										0.0
Other flatfish	0.6	2.2	2.0										4.8
CA Cabezon	0.0	1.3	1.2										2.5
CA Kelp greenling	0.1	0.4	0.1										0.6
Nearshore rockfish N. 42°-40°10' N. lat. ^a	0.0	0.0	0.3										0.4
Copper rockfish 42°-40°10' N. lat.	-	0.0	0.3										0.3
Quillback rockfish 42°-40°10' N. lat.	-	-	-										-
Shelf rockfish N. 40°10' N. lat.	-	-	-										-
Yellowtail rockfish N. 40°10' N. lat.	-	-	-										-
Slope rockfish N. 40°10' N. lat.	-	-	-										-
Lingcod N. 40°10' N. lat.	-	0.1	0.1										0.2
Nearshore rockfish S. 40°10' N. lat. ^a	0.2	0.7	9.3										10.2
Copper rockfish S. 40°10' N. lat.	0.1	0.0	4.7										4.9
Quillback rockfish S. 40°10' N. lat.	-	-	-										-
CA scorpionfish	4.9	6.0	5.3										16.2

Stock/Stock Complex ¹	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
Shelf rockfish S. 40°10' N. lat. ^b	0.0	0.1	20.0										20.1
Vermilion rockfish S. 40°10' N. lat.	0.0	0.1	12.1										12.2
Bocaccio S. 40°10' N. lat.	-	0.0	4.5										4.5
Chilipepper S. 40°10' N. lat.	0.0	-	-										0.0
Cowcod S. 40°10' N. lat.	-	-	0.4										0.4
Slope rockfish S. 40°10' N. lat. ^c	-	-	0.1										0.1
Lingcod S. 40°10' N. lat.	-	-	-										-
Sablefish N. 36° N. lat.	0.2	0.3	1.6										2.1
Sablefish S. 36° N. lat.	0.0	-	0										0.0
Longspine thornyhead N 34° 27' N. lat.	-	-	0										0.0
Longspine thornyhead S 34° 27' N. lat.	-	-	-										-
Shortspine thornyhead N 34° 27' N. lat.	-	-	-										-
Shortspine thornyhead S 34° 27' N. lat.	-	-	-										-

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

1/ See rockfish stock complex definitions under Table 1.

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. Recreational quillback rockfish ACVs (mt) north and south of 40°10' N. lat. through May 29, 2022 compared to monthly catch estimates. When monthly estimates become available, the ACV for that month is reported with a strike-through and is no longer used in calculating the total projected catch for the year. Data are from RecFIN and CDFW, are preliminary and subject to change. Dash indicates no mortality, and 0.0 indicates trace mortality.

	N. 40°10' N. lat.		S. 40°10' N. lat.	
	ACV	Estimate	ACV	Estimate
January	-	-	-	-
February	-	-	-	-
March	-	-	-	-
April	0.0	TBD	0.1	TBD
May (data through May 29)	0.3	TBD	0.0	TBD
Total	0.3		0.1	

Table 4. Recreational copper rockfish ACVs (mt) north and south of 40°10' N. lat. through May 29, 2022 compared to monthly catch estimates. When monthly estimates become available, the ACV for that month is reported with a strike-through and is no longer used in calculating the total projected catch for the year. Data are from RecFIN and CDFW, are preliminary and subject to change. Dash indicates no mortality, and 0.0 indicates trace mortality.

	N. 40°10' N. lat.		S. 40°10' N. lat.	
	ACV	Estimate	ACV	Estimate
January	0.0	0.0	0.0	0.0
February	0.0	0.0	0.1	0.0
March	0.0	0.3	2.2	4.8
April	0.0	TBD	3.1	TBD
May (data through May 29)	0.5	TBD	3.4	TBD
Total	0.9		11.3	

Table 5. 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 ¹	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
YELLOWEYE ROCKFISH	-	-	-	-	-								-
CA Black rockfish	2.2	1.2	5.3	5.3	4.6								18.6
Canary rockfish	1.5	2.3	1.7	1	1.2								7.7
Darkblotched rockfish	0.0	0.0	0.3	0.0	0.0								0.3
Shortbelly rockfish	-	-	-	-	-								-
Splitnose rockfish	-	0.0	0.0	0.0	0.0								0.0
Widow rockfish	0.8	0.5	0.4	0.4	0.7								2.8
Spiny dogfish	0.1	0.0	0.0	-	0.0								0.1
Dover sole	0.0	0.0	0.0	0.0	0.0								0.0
English sole	-	-	-	-	-								-
Petrale sole	0.1	0.0	0.1	0.0	0.0								0.2
Starry flounder	-	0.0	-	-	-								0.0
Other flatfish	0.0	0.0	0.1	0.3	0.1								0.5
CA Cabezon	3.2	1.7	1	1.1	1.7								8.7
CA Kelp greenling	0.4	0.3	0.2	0.2	0.2								1.3
Nearshore rockfish N. 42°-40°10' N. lat. ^a	0.5	0.2	0.5	0.5	0.4								2.1
Copper rockfish 42°-40°10' N. lat.	0.0	0.0	0.0	0.1	0.1								0.2
Quillback rockfish 42°-40°10' N. lat.	0.0	0.0	0.0	0.1	0.1								0.2
Shelf rockfish N. 40°10' N. lat.	0.2	0.1	0.2	0.1	0.1								0.7
Yellowtail rockfish N. 40°10' N. lat.	0.4	0.3	0.2	0.4	0.3								1.6
Slope rockfish N. 40°10' N. lat.	-	0.1	0.5	0.2	0								0.8
Lingcod N. 40°10' N. lat.	1.6	1	1.2	1.2	1								6.0
Nearshore rockfish S. 40°10' N. lat. ^a	7.4	6.6	4.7	3	5.2								26.9
Copper rockfish S. 40°10' N. lat.	0.2	0.2	0.2	0.1	0.3								1.0
Quillback rockfish S. 40°10' N. lat.	0.0	0.1	0.1	0.1	0.1								0.4
CA scorpionfish	0.0	0.0	0.0	0.2	0.3								0.5

Stock/Stock Complex ¹	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
Shelf rockfish S. 40°10' N. lat. ^b	8.9	8.1	5.7	7.2	11.1								41.0
Vermilion rockfish S. 40°10' N. lat.	6.3	5.8	4.5	5.1	8.2								29.9
Bocaccio S. 40°10' N. lat.	5.4	4.4	1.5	2.9	3.6								17.8
Chilipepper S. 40°10' N. lat.	6	2.3	2.7	1.6	3.1								15.7
Cowcod S. 40°10' N. lat.	-	-	-	-	-								-
Slope rockfish S. 40°10' N. lat. ^c	0.6	0.5	0.1	0.3	0.3								1.8
Blackgill rockfish S. 40°10' N. lat. ^d	7.6	3.3	3.6	1.4	0.9								16.8
Lingcod S. 40°10' N. lat.	4.1	2.6	1.6	1.2	1.9								11.4
Sablefish N. 36° N. lat.	34.2	25.7	38.9	46.8	39								184.6
Sablefish S. 36° N. lat.	21.0	18.8	10.4	9.9	13.3								73.4
Longspine thornyhead N 34° 27' N. lat.	0.1	0.1	0.2	0.2	0.2								0.8
Longspine thornyhead S 34° 27' N. lat.	0.7	0.3	0.5	0.5	0.6								2.6
Shortspine thornyhead N 34° 27' N. lat.	2.1	1.5	1.8	1.3	1.2								7.9
Shortspine thornyhead S 34° 27' N. lat.	4.4	3.9	3.7	2.0	2.6								16.6

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

1/ See rockfish stock complex definitions under Table 1.

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 sectors.

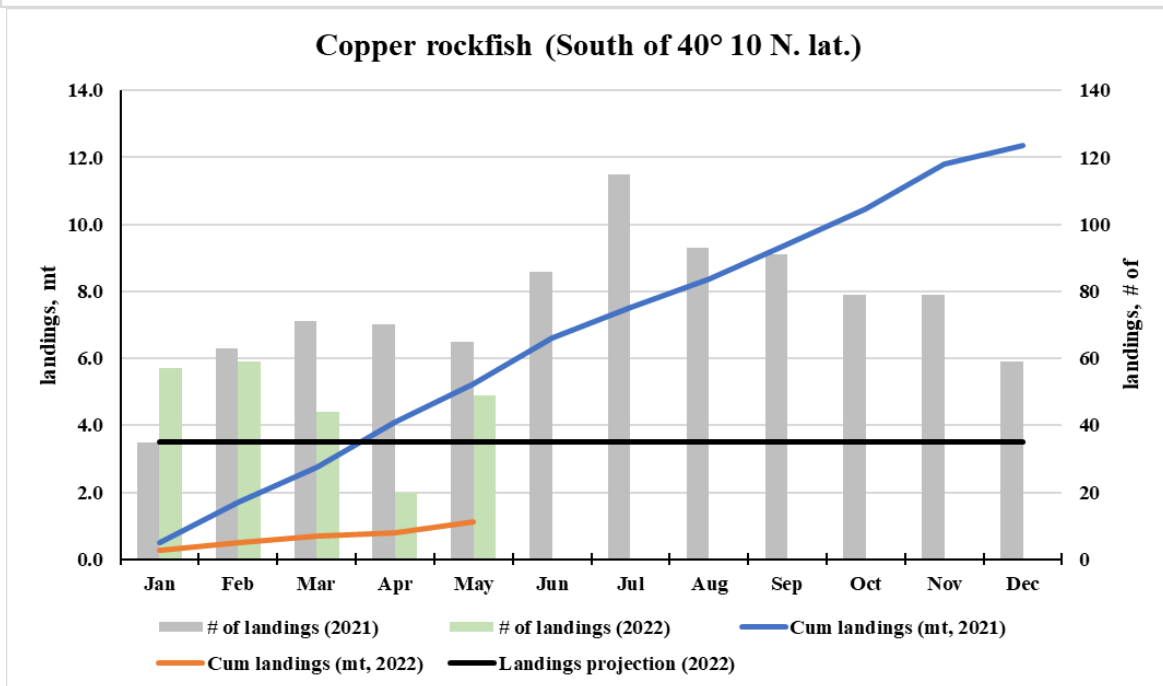
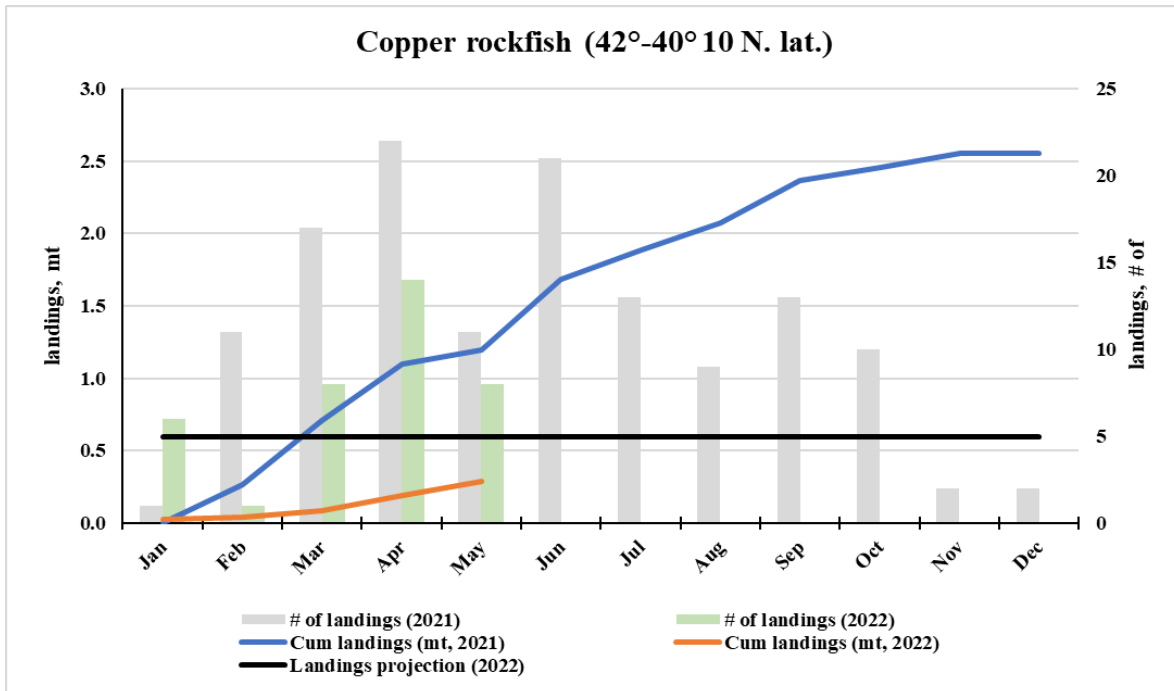


Figure 1. Copper rockfish cumulative commercial landings in 2021 (blue line) and 2022 (orange line) compared to the 2022 projected landing (black line), and number of landings in 2021 (gray bar) and 2022 (green bar) for the area between 42 – 4010' N. lat. and for south for 40 10' N lat. e Data are from PacFIN, are preliminary and subject to change.

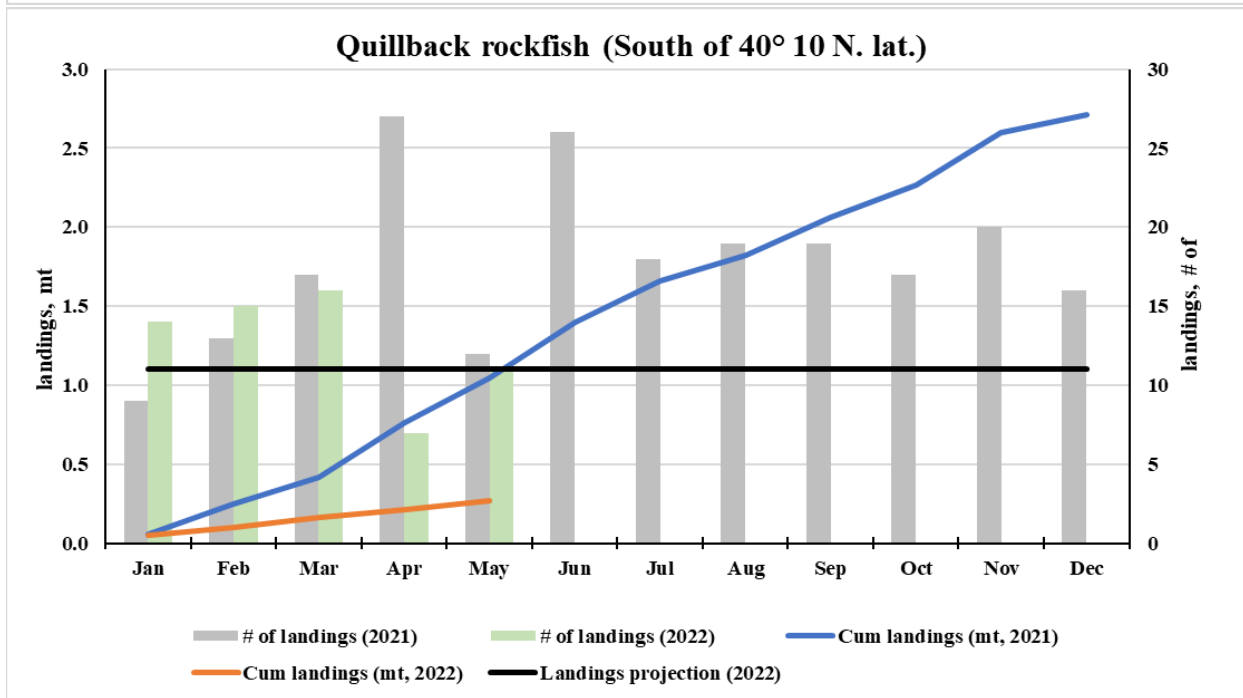
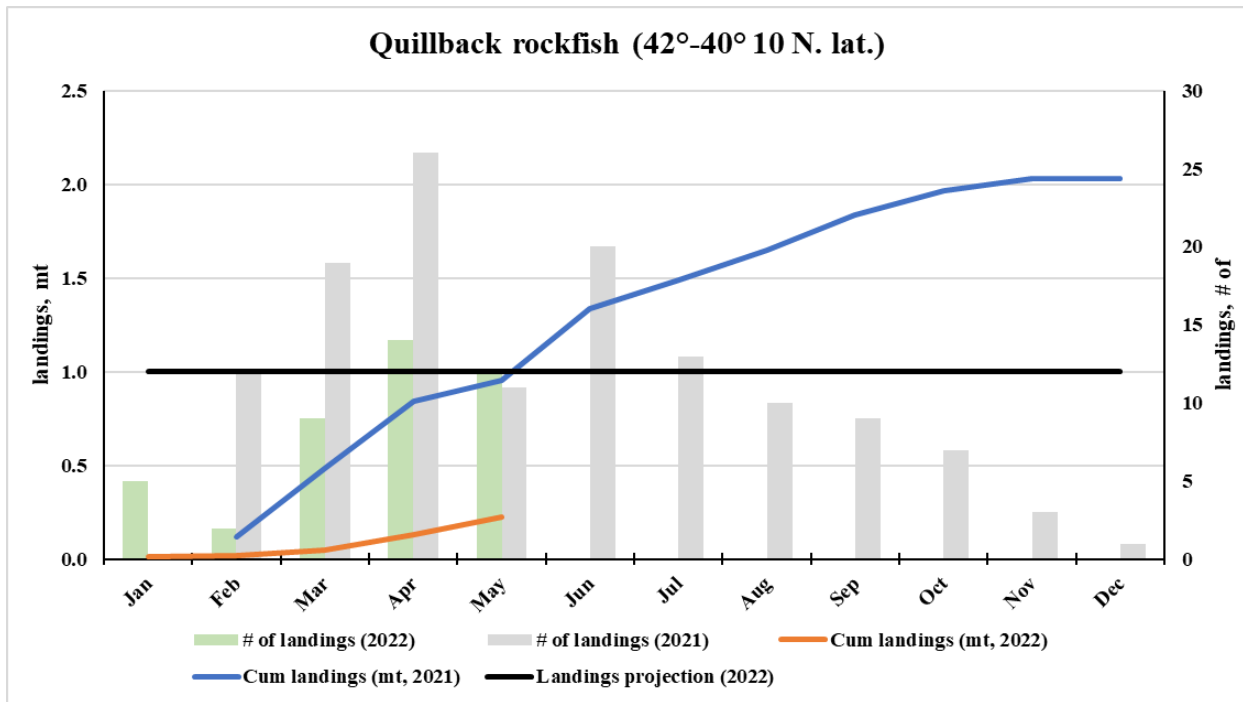


Figure 2. Quillback rockfish cumulative commercial landings in 2021 (blue line) and 2022 (orange line) compared to the 2022 projected landing (black line), and number of landings in 2021 (gray bar) and 2022 (green bar) for the area between 42 – 4010' N. lat. and for south for 40 10' N lat. Data are from PacFIN, are preliminary and subject to change.

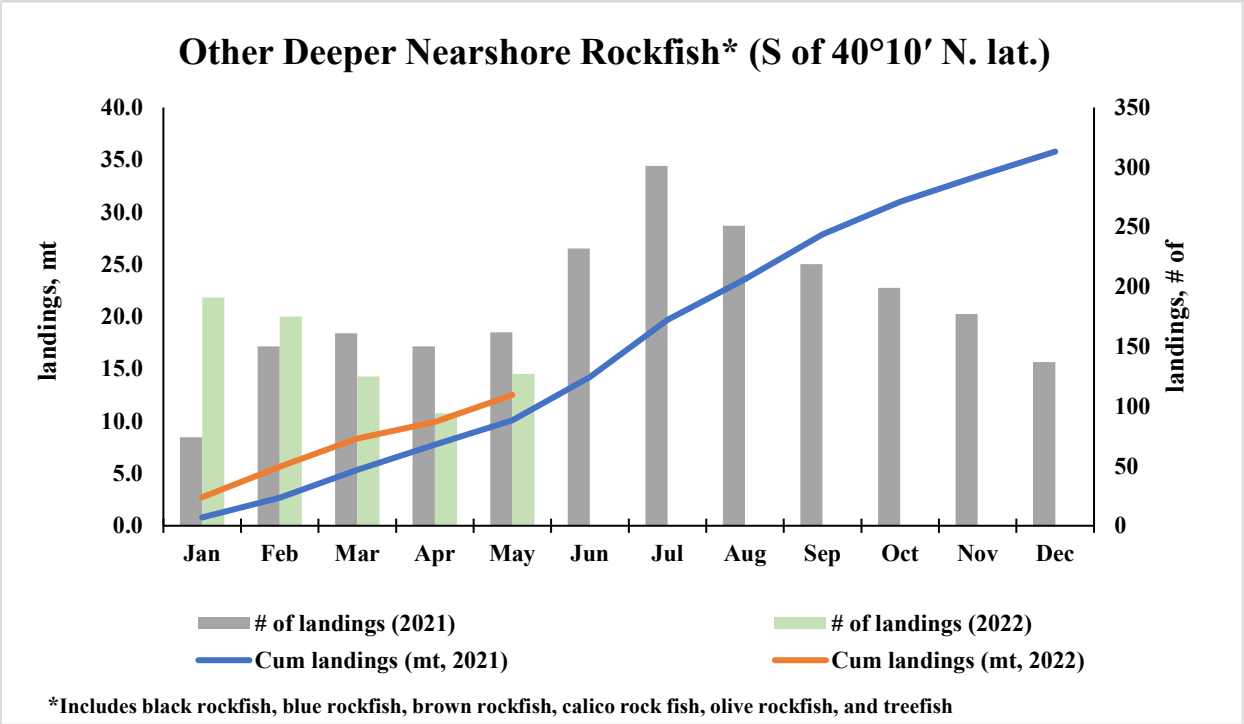
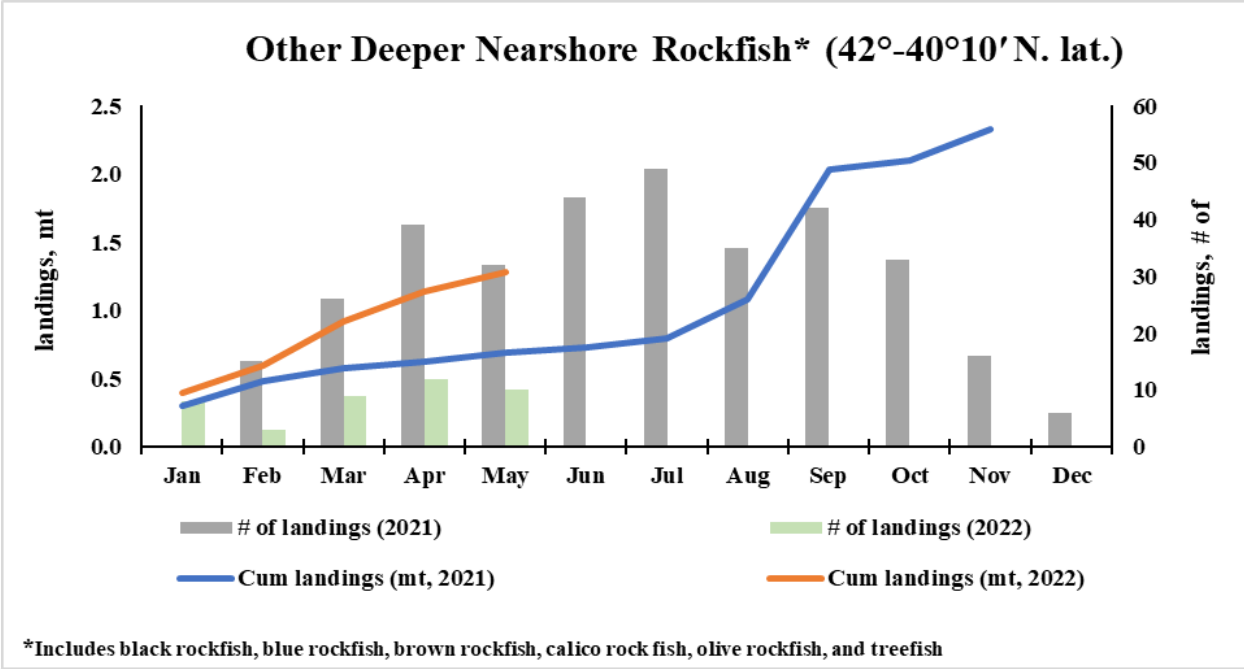


Figure 3. Other deeper nearshore rockfish cumulative commercial landings in 2021 (blue line) and 2022 (orange line), and number of landings in 2021 (gray bar) and 2022 (green bar) for the area between 42 – 4010' N. lat. and for south for 40 10' N lat. Data are from PacFIN, are preliminary and subject to change.