

GROUND FISH MANAGEMENT TEAM INFORMATION REPORT ON HARVEST  
SPECIFICATIONS TECHNICAL CORRECTIONS AND INSEASON ADJUSTMENTS -  
FINAL ACTION

The Groundfish Management Team (GMT) discussed the current status of groundfish fisheries and the need for any inseason adjustments during the September 2023 Pacific Fishery Management Council (Council) meeting. Below, the GMT details action items that have been brought to the GMT for Council consideration.

***Action Items***

Below, the GMT provides our summary of recommendations. There are no proposed changes to trip limits or area closures between 34° 27' N. lat. and the U.S./Mexico border as a result of conservation concerns with quillback rockfish. However, the GMT has identified a conservation concern with vermilion rockfish south of 34° 27' N. lat. that may merit a trip limit change and provides some analysis below.

**Summary of GMT Recommendations:**

Sablefish north of 36° N. lat.

- Limited Entry Fixed Gear (LEFG): Option 2 of 9,000 lbs. per week, not to exceed 18,000 lbs. per bimonthly period
- Open Access (OA): Option 2 of 4,000 lbs. per week, not to exceed 8,000 lbs. per bimonthly period

Lingcod north of 42° N. lat.

- LEFG: Option 1 of 9,000 lbs. per bimonthly period
- OA: Option 1 of 4,500 lbs. per month

Remaining actions based on quillback rockfish south of 42° N. lat.

- Prohibit quillback rockfish retention in Federal waters off California in all recreational (*i.e.*, bag limit of zero) and commercial groundfish fisheries (*i.e.*, zero retention under trip limit for minor nearshore rockfish complex)
- Close the “nearshore” recreational groundfish fisheries for the remainder of 2023 in Federal waters for the Northern Groundfish Management Area (GMA), Mendocino GMA, San Francisco GMA, and Central GMA; recreational vessels would be required to fish seaward of the 50 fathom rockfish conservation area (RCA) boundary line. Shelf rockfish, slope rockfish, and lingcod may be taken seaward of the 50-fathom boundary line, while it will be unlawful to take or possess nearshore rockfish, cabezon or greenlings at any depth.
- If the Council chooses anything less restrictive than the GMT-recommended alternatives for the trip limits listed below, then the GMT recommends Alternative 1 under the Non-trawl RCA boundary (move the shoreward boundary of the Non-trawl RCA off California to 30 fathoms, except for between 34° 27' N. lat. and the U.S./Mexico border). However, if the Council does choose the alternatives for gear-specific trip limits below, then the GMT recommends status quo management of the Non-trawl RCA boundary.
  - *LEFG: for the following stocks and areas, 0 lbs. per bimonthly period (per month for lingcod):*

- Minor Shelf Rockfish complex 42° N. lat. to 34° 27' N. lat.
- Widow rockfish 42° N. lat. to 34° 27' N. lat.
- Yellowtail rockfish 42° N. lat. to 40° 10' N. lat.
- Canary rockfish 42° N. lat. to 34° 27' N. lat.
- Minor Nearshore Rockfish complex 42° N. lat. to 34° 27' N. lat. (shallow and deeper nearshore)
- Lingcod 42° N. lat. to 34° 27' N. lat.
- Chilipepper rockfish 40° 10' N. lat. to 34° 27' N. lat.
- Bocaccio rockfish 40° 10' N. lat. to 34° 27' N. lat.
- Cabezon 42° N. lat. to 34° 27' N. lat.
- *OA: For the following stocks and areas, 0 lbs. per bimonthly period (per month for lingcod):*
  - Minor Nearshore Rockfish 42° N. lat. to 34° 27' N. lat. (shallow and deeper nearshore)
  - Lingcod 42° N. lat. to 34° 27' N. lat.
  - Cabezon 42° N. lat. to 34° 27' N. lat.
- *OA: For the following stocks and areas, No Action trip limits with the requirement that only legal non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) can be used:*
  - Widow rockfish 42° N. lat. to 34° 27' N. lat.
  - Yellowtail rockfish 42° N. lat. to 40° 10' N. lat.
  - Canary rockfish 42° N. lat. to 34° 27' N. lat.
  - Bocaccio rockfish 40° 10' N. lat. to 34° 27' N. lat.
  - Chilipepper rockfish 40° 10' N. lat. and 34° 27' N. lat.
- *OA: For Minor Shelf Rockfish:*
  - 42° N. lat. to 40° 10' N. lat.: Alternative 3, 400 lbs. per month with a gear-specific trip limit for non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) only
  - 40° 10' N. lat. and 34° 27' N. lat.: Alternative 3, 2,000 lbs. per bimonthly period, of which no more than 200 lb. may be vermilion with a gear-specific trip limit for non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) only

## **Sablefish North of 36° N. lat.**

The GMT identified the possibility that sablefish trip limits north of 36° N. lat. could be increased at this meeting to provide additional opportunity for vessels in the LEFG and OA sectors. Landings in both northern sectors are tracking well below their respective sector-specific targets so far in 2023, and the LEFG sector in particular had a slow start to the fishing season, largely driven by fishing opportunities off Alaska. Below, the GMT provides alternative trip limit options for the remainder of 2023 alongside year-end landings projections to inform Council action.

### *Limited Entry Fixed Gear North of 36° N. Lat.*

Projected 2023 landings for the Limited Entry North (LEN) sector are shown in Table 1 below. The highest trip limit increase (Option 2) would double the weekly and bimonthly trip limits compared to Status Quo (SQ). LEN trip limits have not been higher than the Status Quo option

trip limits since at least 2010. Under Option 2, landings are projected at 76-87 percent of the LEN target, but the model has been over-predicting landings in 2023 by 11-45 percent. Additionally, the primary sablefish season was recently extended to December 31, so LEN activity in November and December is likely to be lower than past years as primary vessels continue to fish their primary tier limits.

While the higher 2023 status quo trip limits, compared to prior years, have led to fewer LEN vessels fully attaining the bimonthly trip limits, discussions with industry indicated that there are a few high-volume vessels that could take advantage of higher trip limits under Options 1 or 2. The GMT identified five vessels, out of 25 total vessels, that have attained more than 90 percent of the bimonthly trip limit at least once in 2023, with three of those five vessels, attaining more than 90 percent more than once. **Therefore, the GMT recommends Option 2 of 9,000 lbs. per week, not to exceed 18,000 lbs. per bimonthly period.**

**Table 1. Options for trip limit increases in the LEN sector (based on actual landings through August 31, 2023 plus projected landings after August 31, 2023). Bolded row represents the GMT recommendation.**

Option	Trip Limit	Projected Landings (rd. wt. mt) under Three Price Scenarios			Target (mt)	Attainment under Three Price Scenarios		
		Low	Average	High		Low	Average	High
SQ	4,500 lbs./week not to exceed 9,000 lbs./2 months	215	228	240	<b>417</b>	52%	55%	58%
1	6,750 lbs./week not to exceed 13,500 lbs./2 months	266	284	302		64%	68%	72%
<b>2</b>	<b>9,000 lbs./week not to exceed 18,000 lbs./2 months</b>	<b>317</b>	<b>340</b>	<b>364</b>		<b>76%</b>	<b>82%</b>	<b>87%</b>

*Open Access North of 36° N. Lat.*

Projected 2023 landings for the Open Access North (OAN) sector are shown in Table 2 below. The highest trip limit increase (Option 2) for the OAN sector is not as large of an increase as the LEN sector because of high OAN participation in 2023. Under Option 2, landings are projected at 87-95 percent of the OAN target. The OAN model over-predicted landings in January and February by 266 percent, but prediction error has steadily declined since then, down to one percent in July and August.

Similar to the LEN sector, trip limit attainments have generally been lower than prior years, but 18 of the 129 vessels in the OAN fleet have attained more than 90 percent of the bimonthly limit at least once, with some of those vessels attaining more than 90 percent multiple times. **Therefore, the GMT recommends Option 2 of 4,000 lbs. per week, not to exceed 8,000 lbs. per bimonthly period.**

**Table 2. Options for trip limit increases in the OAN sector (based on actual landings through August 31, 2023 plus projected landings after August 31, 2023). Bolded row represents the GMT recommendation.**

Option	Trip Limit	Projected Landings (rd. wt. mt) under Three Price Scenarios			Target (mt)	Attainment under Three Price Scenarios		
		Low	Average	High		Low	Average	High
SQ	3,000 lbs./week not to exceed 6,000 lbs./2 months	520	540	561	<b>687</b>	76%	79%	82%
1	3,500 lbs./week not to exceed 7,000 lbs./2 months	559	583	608		81%	85%	89%
<b>2</b>	<b>4,000 lbs./week not to exceed 8,000 lbs./2 months</b>	<b>599</b>	<b>627</b>	<b>654</b>		<b>87%</b>	<b>91%</b>	<b>95%</b>

### **Lingcod LE/OA North of 42° N. Lat.**

As part of the scoping of the limited entry follow-on package, the Council removed the management measure that would allow multiple non-sablefish cumulative landing limits for vessels in the primary sablefish fishery and sought to instead look at ways to provide opportunity through the harvest specifications or inseason process ([Decision summary, June 2023](#)). Following that, the GMT received a request to double the allowable lingcod take in the LEFG fishery north of 42° N. lat. from 7,000 lbs. to 14,000 lbs. Status quo is currently resulting in regulatory discard for certain participants in the fishery. In an effort to increase opportunity, we modeled three different action alternatives (Table 3). Increases are modeled for both limited entry and open access and apply to both for equity reasons.

**Table 3. Status quo and alternative trip limit options for LE/OA lingcod north of 42° N lat.**

Option	Sector	Area	Jan-Feb	Mar-Apr	May-Jun	Jul-Aug	Sep-Oct a/	Nov-Dec	
Status Quo	LE	N. of 42°	7,000 lbs. / 2 months						
	OA	N. of 42°	3,500 lbs. / month						
Option 1	LE	N. of 42°	7,000 lbs. / 2 months				9,000 lbs. / 2 months		
	OA	N. of 42°	3,500 lbs. / month				4,500 lbs. / month		
Option 2	LE	N. of 42°	7,000 lbs. / 2 months				11,000 lbs. / 2 months		
	OA	N. of 42°	3,500 lbs. / month				5,500 lbs. / month		
Option 3	LE	N. of 42°	7,000 lbs. / 2 months				14,000 lbs. / 2 months		
	OA	N. of 42°	3,500 lbs. / month				7,000 lbs. / month		

a/ Increases are recommended to be implemented as soon as possible, however, they will not be in effect until NMFS publishes the inseason action in the *Federal Register*. If that happens before October 31, Period 5 bimonthly limits would increase.

These projections do not take into account new entrants into the OA fishery that might choose to target lingcod for the first time, nor do they account for any limited entry targeting of lingcod and market development. The projections in Table 3 do take into account those participants who are near or over the trip limits now and therefore would be expected to increase catch due to reducing regulatory induced discards. Given the potential Council action to take action south of 42° N. lat. to mitigate quillback rockfish impacts, effort may shift as boats south of 42° N. lat. move to fish north of 42° N. lat. to take advantage of these limits. The projection model does not account for that effort shift/increase and the associated impacts on lingcod or yelloweye rockfish. However, to date there is not a targeted lingcod fishery between 40° 10' N. lat. and 42° N. lat. so adding trips from that area into the north of 42° projection model did not result in a significant increase in yelloweye and lingcod impacts. Also of note, our understanding is that with a marine heat wave scenario, there may be a habitat compression of humpback whales (similar to 2017) in shallower waters, potentially leading to increased interactions. Therefore, the Council may want to weigh the risks in the possible scenarios of A) increasing lines in the water in the event of a potential effort shift or B) the potential of status quo effort and increased opportunity with higher landing limits for those within the fishery.

There are small differences in projected lingcod landings across options (Table 4). However, the projected lingcod attainment remains low relative to the non-trawl allocation. Projected yelloweye rockfish impacts increase from status quo to Option 3, but the difference between status quo and Option 3 is 0.13 mt for the remainder of 2023 from September. All options fall well within the non-trawl yelloweye rockfish projected impacts of 3.9 mt, which assumes full attainment of the non-trawl allocations, and also well within the 6.3 mt non-trawl commercial annual catch target. To date, yelloweye rockfish in the non-trawl commercial sector is at 0 percent of their catch target. Therefore, **the GMT recommends Option 1, because the increase is expected to reduce regulatory discard and provide additional opportunity for industry members already in the**

**fishery.** Choosing Option 1 would allow for a slow ratcheting up of the limits in light of the limitations of the projection model and uncertainty outlined above.

**Table 4. Projected lingcod landings and yelloweye rockfish impacts for Status Quo and alternative trip limit options for lingcod north of 42° N lat.**

Option	Projected Landings of Lingcod OA & LE (mt)	Non-trawl Allocation (mt)	% Attainment	Projected Yelloweye Rockfish Impacts (mt)	Non-Trawl Commercial Projected Yelloweye Rockfish Impacts (mt)
Status Quo	160.8	2,254.1	7%	1.43	3.9
<b>Option 1</b>	<b>166.0</b>	<b>2,254.1</b>	<b>7%</b>	<b>1.47</b>	<b>3.9</b>
Option 2	170.1	2,254.1	8%	1.51	3.9
Option 3	176.2	2,254.1	8%	1.56	3.9

### Quillback Rockfish off California

Quillback rockfish off California is a nearshore stock with approximately 75 percent caught in recreational fisheries and 25 percent in commercial fisheries. The Council and the National Marine Fisheries Service (NMFS) manage the portion of quillback rockfish that occur in the exclusive economic zone (EEZ, *i.e.*, 3 to 200 nautical miles (nm) offshore, also referred to as “federal waters”) as part of the minor nearshore rockfish complex north and south of 40° 10' N. lat. Quillback rockfish off California is a stock of concern due to the results of the 2021 stock assessment, which indicated that the stock is below its minimum stock size threshold of 25 percent unfished biomass. In response to this new scientific information, the Council recommended that for the 2023-24 Groundfish Harvest Specifications and Management Measures action ([87 FR 77007](#); effective January 1, 2023), NMFS: (1) set annual catch targets (ACTs) for quillback rockfish off the coast of California, north and south of 40° 10' N. lat. (see [50 CFR 660 Table 1a](#) and [Table 2a](#)); (2) set area-specific sub-trip limits in the non-trawl commercial fisheries (see [Table 2 North](#) of Subpart E and [Table 3 North](#) of Subpart F); and (3) set a sub-bag limit of 1 quillback rockfish in California recreational fisheries (see [50 CFR 660.360\(c\)\(3\)\(ii\)\(B\)](#)).

#### *California State Actions for 2023 and Recommended Consistent Council Action*

On July 28, 2023, the California Department of Fish and Wildlife (CDFW) took state action to prohibit retention of quillback rockfish in both the recreational and commercial groundfish fisheries statewide, effective August 7, 2023 (see [Agenda Item G.8.a CDFW Report 1](#)). The purpose of this inseason action was to reduce nearshore quillback rockfish mortality, as the combined recreational and commercial take of quillback rockfish was projected to exceed the ACTs for north and south of 40° 10' N. lat. recommended by the Council, and implemented by NMFS for the 2023 fishing year.

On August 11, 2023, CDFW took state action to close the nearshore recreational fishery for the Northern GMA; Oregon/California border to 40° 10' N. lat., effective August 21, 2023 (see [CDFW press release](#)). On August 21, 2023, CDFW took state action to close the nearshore recreational boat-based fishery in the Mendocino GMA (40° 10' N. lat. – 38° 57.5' N. lat.), San Francisco GMA (38° 57.5' N. lat. - 37° 11' N. lat.), and Central GMA (37° 11' N. lat. - 34° 27' N. lat.), effective September 1 (see [CDFW press release](#)). The purpose of these inseason actions was to create an “offshore only” recreational fishery to further reduce quillback rockfish mortality, as updated catch data and projections indicated that the ACTs for north and south of 40° 10' N. lat. had been exceeded. See [Agenda Item G.8.a Supplemental CDFW Report 2](#) for more details on these state actions.

At this meeting, in Agenda Item [G.8.a Supplemental CDFW Report 2](#), CDFW requested that the Council take action in federal waters that align with management measures in California state waters, specifically to prohibit retention of quillback rockfish statewide in the recreational and commercial groundfish fisheries, as well as to close the “nearshore” recreational groundfish fishery, implementing an ‘offshore only’ fishery in the Northern GMA, Mendocino GMA, San Francisco GMA, and Central GMA. In these GMAs, recreational boat-based groundfish fishing will be ‘offshore only’ and allowed only seaward (away from land) of the 50-fathom Recreational RCA boundary line, defined by straight lines connecting waypoints (50 CFR Part 660, Subpart G). Shelf rockfish, slope rockfish and lingcod may be taken seaward of the 50-fathom boundary line, while it would be unlawful to take or possess nearshore rockfish, cabezon or greenlings at any depth.

Council action to make regulations in federal waters consistent with California state actions is warranted based on the analysis of quillback rockfish mortality occurring in state and federal waters shown in [Agenda Item G.8.a Supplemental CDFW Report 2](#) and [Report 3](#). Updated quillback rockfish mortality as of August 27, 2023, for California recreational fisheries and September 5, 2023 for California commercial landings, in relation to its accountability measures, is provided in Table 5 below.

**Table 5. Best estimate of 2023 California quillback rockfish commercial non-trawl landings and recreational mortality, in metric tons (mt).CRFS estimates through June, ACVs through August 27; commercial landings data retrieved from PacFIN September 5. Inseason catch estimates are compared to the 2023 quillback rockfish ACT/ACL contributions north and south of 40°10' N. lat.**

Area	Estimated Recreational Total Mortality (mt)	Commercial Landings (mt)	Combined Mortality (mt) <sup>a/</sup>	2023 Quillback ACT (=ACL contribution) (mt)	% Attainment
North 40°10' N. lat	1.75	0.25	2.00	0.87	230%
South 40°10' N. lat	1.84	0.28	2.12	0.89	238%

a/ commercial does not include estimated discard mortality

In addition, based on recent data from the West Coast Groundfish Observer Program’s (WCGOP) Groundfish Expanded Mortality Multiyear (GEMM) Report ([Agenda Item G.1.b, NWFSC Report 2, September 2023](#)), groundfish commercial sectors fishing in the EEZ are notably contributing to catch and discard mortality of quillback rockfish (see Tables 1 and 2 of [Agenda Item G.8.a, Supplemental GMT Report 2](#)).

Given that: (1) the California quillback rockfish 2023 ACTs for both north and south of 40° 10' N. lat. have been exceeded, (2) the most recent data from the GEMM and CDFW reports shows notable mortality from both the commercial and recreational groundfish sectors, and (3) quillback rockfish off California is anticipated to be designated as its own stock under the proposed Amendment 31 ([88 FR 57400](#)) in the near future, which would enable NMFS to declare it overfished, the GMT thinks that further restriction to California quillback rockfish mortality is necessary in federal waters. **Therefore, the GMT recommends that the Council take action to implement federal management measures in the EEZ that are consistent with the measures California has taken in state waters.**

**Specifically, the GMT recommends:**

- **Prohibition of quillback rockfish retention in federal waters off California in all recreational (i.e., bag limit of zero) and commercial groundfish fisheries (i.e., zero retention under trip limit for minor nearshore rockfish complex); and**
- **Closure of the “nearshore” recreational groundfish fisheries for the remainder of 2023 in federal waters for the Northern GMA, Mendocino GMA, San Francisco GMA, and Central GMA; recreational vessels would be required to fish seaward of the 50 fathom RCA boundary line. Shelf rockfish, slope rockfish, and lingcod may be taken seaward of the 50-fathom boundary line, while it will be unlawful to take or possess nearshore rockfish, cabezon or greenlings at any depth.**



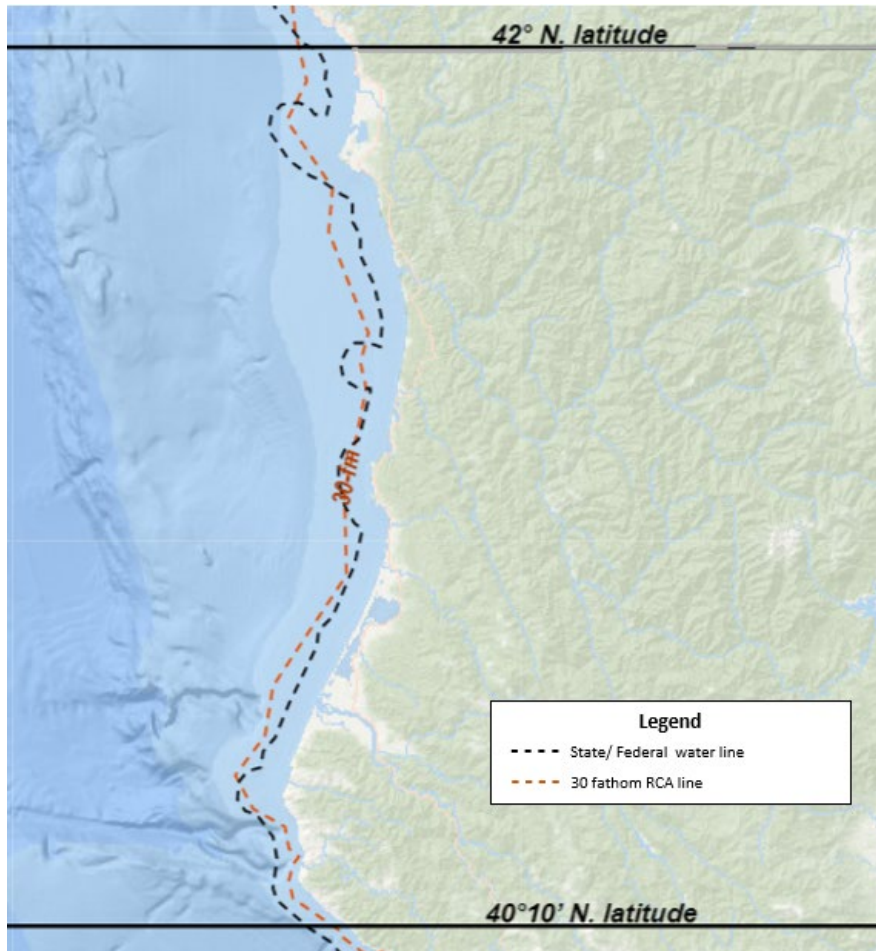
Projected impacts of zero quillback rockfish retention in the recreational fishery, as well as the expanded use of the Recreational RCA to require vessels to fish seaward (as opposed to shoreward) of 50 fathoms in federal waters, were analyzed in the [Environmental Assessment \(EA\) for Amendment 30 to the Pacific Coast Groundfish Fishery Management Plan, 2023-2024 Harvest Specifications, and Management Measures](#). The EA acknowledged that the effects of these management measures would be limited to the small portion of quillback rockfish found in the EEZ, as quillback rockfish inhabit nearshore waters with the majority of observed fishing mortality taken in state waters. However, the GMT sees a conservation concern and thinks additional efforts to reduce mortality are needed based on information summarized above that indicates non-negligible California quillback rockfish mortality from commercial and recreational fisheries in federal waters. Additionally, requiring recreational anglers to fish seaward of the 50 fm RCA line, primarily in federal waters, will reduce the take of quillback rockfish while minimizing the economic impact to fishing communities to the extent possible. The GMT anticipates impacts from these management measures to be within the scope of those discussed in the EA.

Projected impacts of zero quillback rockfish retention in the commercial nearshore fisheries was analyzed in the [2023-24 Groundfish Harvest Specifications and Management Measures Analytical Document](#). Therefore, the GMT anticipates impacts of this management measure to be within the scope of those discussed in the Analytical Document.

#### *Additional Commercial Non-Trawl Fisheries Quillback Rockfish Inseason Actions*

In [Agenda Item G.8.a, Supplemental CDFW Report 2](#), CDFW also requested that the Council consider further actions to reduce quillback rockfish mortality via inseason action in the commercial non-trawl fisheries, in addition to restricting retention by zeroing out the 75 lb per 2 month trip limits, which is consistent with actions CDFW has already taken in state waters. Given that the OFL contributions for quillback rockfish both north and south of 40° 10' N. lat. have been exceeded, the GMT thinks that additional measures to reduce quillback rockfish mortality in the commercial fishery may be warranted by the Council.

According to the GEMM Report ([Agenda Item G.1.b, NWFSC Report 2, September 2023](#)), quillback rockfish are most commonly encountered (landings and discard) between 21 and 50 fathoms in non-trawl commercial fisheries (see Table 7 of [Agenda Item G.8.a, Supplemental GMT Report 2](#)). Therefore, the GMT considered options to move the shoreward boundary of the Non-Trawl RCA to close these shallower depth bins to legal non-trawl gear types (the exception being the two OA non-bottom contact hook-and-line gear types at [50 CFR 660.330\(b\)\(3\)](#), interchangeably referred to as “12E gear”). This action would not entirely eliminate quillback rockfish mortality, as the shallowest fathom line defined in federal regulations available for use as an RCA boundary off California is 30 fathoms, which crosses into state waters in multiple areas as illustrated by Figure 1. This leaves multiple areas open to fishing. Therefore, if the Council chooses to utilize any RCA management line to further restrict additional quillback rockfish mortality, these regulations would only apply to the RCA boundary line within federal waters. Similarly, there are areas in which the RCA boundary line does not meet the state boundary (Figure 1). These areas would allow status quo management unless another federal tool is used to manage catch, regardless of California state actions.



**Figure 1. Map of Northern California between 42° N. lat. (OR/ California Border) and 40°10' N. lat. (Cape Mendocino) with the State/ Federal water line displayed as a dashed black line and the 30 fm RCA line shown as a dashed orange line.**

Due to the limited effectiveness of potential Non-Trawl RCA boundary changes in providing a catch control mechanism in all federal waters to the state line, the GMT considered changes to trip limits. One approach would be to reduce trip limits to zero (0), both for the minor nearshore rockfish complex north and south of 40° 10' N. lat. (includes quillback rockfish) and for species that co-occur with quillback rockfish, including shelf rockfish species, yellowtail rockfish, canary rockfish, widow rockfish, chilipepper rockfish, bocaccio, cabezon, and lingcod. Reducing all of these trip limits to zero (0) would very likely have highly negative socioeconomic impacts on California fishing communities.

In order to maximize the conservation impacts to quillback rockfish and minimize the potential negative socioeconomic impacts to the industry and coastal communities to the extent practicable, the GMT investigated the option to allow access to shelf complex and midwater rockfish species with gear-specific trip limits (authorized as an available inseason measure at [50 CFR 660.60\(c\)\(1\)\(ii\)](#)), specifically for OA non-bottom contact hook-and-line gear types specified at [50 CFR 660.330\(b\)\(3\)](#) (i.e., 12E gear). Quillback rockfish are a demersal (bottom) dwelling species. It is logical that by restricting allowable gear to only gear types that fish above the bottom and in

the water column that impacts to demersal species should be reduced, though potentially not entirely eliminated. The gear types that comport to this concept include non-bottom contact stationary vertical jig gear ([50 CFR 660.330\(b\)\(3\)\(i\)](#)) and non-bottom contact groundfish troll gear ([50 CFR 660.330\(b\)\(3\)\(ii\)](#)), which include requirements for gear to be fished at least 50 feet off the bottom (*i.e.*, away from quillback rockfish).

Based on the design of these gear types and the way they are fished, the GMT concluded that continued use of these gear types are likely to pose minimal negative impacts to quillback rockfish. This conclusion is also based on the low quillback rockfish encounters as summarized from 2023 fish ticket data and relevant exempted fishing permit project catch/discard data from 2009-2022, (see [Agenda Item G.8.a, Supplemental GMT Report 2](#)). Reduction of directed groundfish effort, through such actions as anglers targeting different species, fishing in areas of lower quillback rockfish presence, or even not fishing at all, could also reduce quillback rockfish impacts.

Additionally, anecdotal information from commercial and recreational anglers suggests a strong desire to implement voluntary changes to fishing activities such as increased utilization of descending devices, fishing in depths where quillback rockfish are not common, or choosing to fish with gear configurations with lower quillback rockfish bycatch, which may further reduce quillback rockfish mortality. While the GMT recognizes that the impacts of these gear-specific trip limits are (at this point) largely unquantifiable, it is the GMT's conclusion that these gear-types are likely to reduce impacts to quillback rockfish mortality.

The GMT includes options below to allow 12E gear-specific trip limits for shelf rockfish and midwater rockfish species. These options are designed to reduce impacts to quillback rockfish but to allow some fishing opportunity. Note that these trip limits are only available to the OA sector, however LEFG vessels can declare into the OA sector to fish these limits, subject to applicable crossover provisions at [50 CFR 660.60\(h\)\(7\)\(ii\)](#). Further, it is also likely that 12E gear will reduce benthic dwelling groundfish catch and mortality, specifically yelloweye rockfish. While the management measures are not specifically designed to reduce yelloweye rockfish catch, since quillback and yelloweye rockfishes are both demersal rockfish species (and can co-occur) many of the proposed alternatives to commercial trip limits and/or utilization of a different RCA line could concomitantly reduce mortality on yelloweye rockfish.

#### *Potential Impacts to Vermilion Rockfish*

Due to the potential changes to trip limits and gear rules that the Council may recommend to NMFS as part of this inseason action to minimize impacts to quillback rockfish in the commercial sector, the GMT sees the potential for effort increases to minor shelf rockfish species, especially high value species such as vermilion rockfish. While the GMT intends to minimize potential impacts to quillback rockfish, whose OFL contributions have been exceeded, the GMT would like to avoid overharvesting other species. To this end, alternatives to lower the minor shelf rockfish complex trip limits south of 42° N Lat. are proposed to minimize the potential expected effort shift anticipated to this group complex. Due to the high value of vermilion rockfish, there are concerns with non-compliance in utilizing 12E gear. Lowering the trip limit will disincentivize noncompliance.

Within the Minor Shelf Rockfish Complex, vermilion rockfish south of 40° 10' ACL contribution is projected to be exceeded (Table 6) and therefore additional trip limit reductions should be taken. The 2022 recreational take for vermilion rockfish from August to December was used as a projection for the recreational vermilion rockfish landings for the remainder of August to December 2023 presented in Table 6. These projections are high, as they do not account for recreational season changes implemented in 2023 (reduced season lengths, deeper than 50 fm fisheries, etc.) however they were the best projections available at the writing of this report. Commercial landings are higher than this time last year and we anticipate an additional increase in landings as effort may shift if nearshore opportunity is limited; therefore, the Council should consider a reduction in trip limits for the Minor Shelf Rockfish Complex as a mechanism to reduce impacts to vermilion rockfish between 42° N. lat. to 40° 10' N. lat. and between 40° 10' N. lat. and 34° 27' N. lat.

The GMT analyzed the potential reduction to open access and limited entry the minor shelf rockfish complex trip limits between 42° N. lat. to 40° 10' N. lat. and between 40° 10' N. lat. and 34° 27' N. lat. including a vermilion rockfish subtrip limit between 40° 10' N. lat. and 34° 27' N. lat.

*Limited Entry and Open Access Fixed Gear 42° N. lat. to 40° 10' N. lat.*

Projected 2023 landings for the LE and OA sector from 42° N. lat. to 40° 10' N. lat. are shown in Table 7 below. The trip limit reduction (Option 1) for LE and OA would half the monthly trip limits compared to Status Quo. Currently the LE trip limit for minor shelf rockfish is 800 lb/ month, and OA is 800 lb/ month. Option 1 would reduce LE to 400 lb/ month, and OA to 400 lb/ month. The combined LE and OA reduction is not likely to change projected landings this year; however, this model is unable to predict the potential shift in effort that is expected from limited opportunity for other rockfish species.

*Limited Entry and Open Access Fixed Gear 40° 10' N. lat. and 34° 27' N. lat.*

Projected 2023 landings for the LE and OA sector from 40° 10' N. lat. and 34° 27' N. lat. are shown in Table 7 below. The trip limit reduction (Option 1) for LE and OA would half the bimonthly trip limits compared to Status Quo. Currently LE trip limit for minor shelf rockfish is 8,000 lb/ 2 months, of which no more than 500 lb may be vermilion, and OA at 4,000 lb/ 2 months, of which no more than 400 lb may be vermilion. Option 1 would reduce the LE trip limit for minor shelf rockfish to 4,000 lb/ 2 months, of which no more than 250 lb may be vermilion, and OA to 2,000 lb/ 2 months, of which no more than 200 lb may be vermilion. The combined LE and OA reduction is expected to reduce landings by 1.79 mt, similarly LE and OA Fixed Gear 42° N. lat. to 40° 10' N. lat. above, the model is unable to predict the potential shift in effort which is expected from limited opportunity in other rockfish species.

**Table 6. Projected California 2023 vermillion rockfish landings with comparison to reference points.**

<b>Area</b>	<b>Commercial landings to 9/11</b>	<b>Projected comm. landings from 9/12 to end of year</b>	<b>Rec. landings as of 7/31</b>	<b>Projected rec. landings from 8/1 to end of year</b>	<b>Total projected landings (comm. and rec.)</b>	<b>OFL/ABC/ ACL Contribution to the Minor Shelf Complex</b>	<b>Projected % ACL Contribution attained with no alterations</b>
42°- 40° 10'	0.9	0.4	2.2	3.20	6.7	OFL=6.99 ABC/ACL=6.54	102%
South of 40° 10'	70.9	31.9	157.3	114.90	375.0	OFL=311.24 ABC/ACL=281.3	133%

**Table 7. Options for trip limit decreases to vermillion rockfish North of 34° 27' N. lat. to 40° 10' N. lat. and North 40° 10' N. lat. for both the Limited Entry (LE) and Open Access (OA) sectors (based on actual landings through August 31,2023 plus projected landings after August 31,2023).**

Area	Sector, Option	Trip limit	Projected landings (mt)	Estimated total mortality (mt) a/
North of 40° 10' N. lat. Minor Shelf Rockfish	No Action			
	LE	800 lb. / mo.	0.60	1.96
	OA	800 lb. / mo.	1.36	
	Option 1			
	LE	400 lbs. / mo.	0.60	1.96
	OA	400 lbs. / mo.	1.36	
40° 10' N. to 34° 27' N. lat. Vermilion Rockfish	No Action			
	LE	500 lbs. / 2 mos	1.94	22.12
	OA	400 lbs. / 2 mos.	20.18	
	Option 1			
	LE	250 lbs. / 2 mos.	1.72	20.33
	OA	200lbs. / 2 mos.	18.61	

Given the above considerations, the GMT offers the below list of specific options for 2023:

**Non-Trawl RCA Boundary Changes**

- No Action: Non-Trawl boundaries do not change and remain as specified in regulation
- Alternative 1: Move the shoreward boundary of the Non-Trawl RCA off California to 30 fathoms (except for between 34° 27' N. lat. and the U.S./Mexico border)

**If the Council chooses anything less restrictive than the GMT recommended alternatives for the trip limits listed below, then the GMT recommends Alternative 1 under the Non-trawl RCA boundary, since it would offer additional protections for quillback rockfish in the majority of federal waters. However, if the Council does choose the alternatives for gear-specific trip limits below, then the GMT recommends Status quo management of the Non-trawl RCA boundary.**

There are no proposed changes to trip limits between 34° 27' N. lat. and the U.S./Mexico border as a result of conservation concerns with quillback rockfish.

### ***Minor Shelf Rockfish Complex***

*Between 42° N. lat. to 40° 10' N. lat.,*

#### **Open Access (OA)**

- No Action: 800 lbs./ months
- Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region for this complex
- Alternative 2: Implement No Action trip limits with the requirement that only legal non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) can be used; all other OA gear types (as defined at § 660.11) would be prohibited.
- **Alternative 3: Trip limit will be 400 lbs / month with a gear-specific trip limit for non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) only; all other OA gear types (as defined at § 660.11) would be prohibited.**

#### **Limited Entry (LE)**

- No Action: 800 lbs./ 1 months
- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region for this complex**

*Between 40° 10' N. lat. and 34° 27' N. lat.*

#### **Open Access**

- No Action: 4,000 lbs./2 months, of which no more than 400 lbs. may be vermilion
- Alternative 1: Trip limit will be set 0 lbs. / 2 months in this region for this complex
- Alternative 2: Implement No Action trip limits with the requirement that only legal non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) can be used; all other OA gear types (as defined at § 660.11) would be prohibited.
- **Alternative 3: Trip limit will be 2,000 lbs./2 months, of which no more than 200 lb. may be vermilion with a gear-specific trip limit for non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) only; all other OA gear types (as defined at § 660.11) would be prohibited.**

#### **Limited Entry**

- No Action: 8,000 lb/ 2 months, of which no more than 500 lb may be vermilion
- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region for this complex**

### ***Widow Rockfish***

*Between 42° N. lat. to 40° 10' N. lat.*

#### **Open Access**

- No Action: 2,000 lbs. / 2 months
- Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for widow rockfish
- **Alternative 2: Implement No Action trip limits with the requirement that only legal non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) can be used; all other OA gear types (as defined at § 660.11) would be prohibited.**

#### **Limited Entry**

- No Action: 4,000 lb/ 2 months
- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region**

*Between 40° 10' N. lat. and 34° 27' N. lat.*

**Open Access**

- No Action: 6,000 lbs. / 2 months
- Alternative 1: Trip limit will be set at 0 mt in this region for widow rockfish
- **Alternative 2: Implement No Action trip limits with the requirement that only legal non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) can be used; all other OA gear types (as defined at § 660.11) would be prohibited.**

**Limited Entry**

- No Action: 10,000 lb/ 2 months
- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region**

***Yellowtail Rockfish***

*Between 42° N. lat. to 40° 10' N. lat. .*

**Open Access**

- No Action: 1,500 lbs. / months
- Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for yellowtail rockfish
- **Alternative 2: Implement No Action trip limits with the requirement that only legal non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) can be used; all other OA gear types (as defined at § 660.11) would be prohibited.**

**Limited Entry**

- No Action: 3,000 lb/ months
- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region**

***Canary Rockfish***

*Between 42° N. lat. to 40° 10' N. lat.*

**Open Access**

- No Action: 2,000 lbs / 2 months
- Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for canary rockfish
- **Alternative 2: Implement No Action trip limits with the requirement that only legal non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) can be used; all other OA gear types (as defined at § 660.11) would be prohibited.**

**Limited Entry**

- No Action: 4,000 lb/ 2 months
- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region**

*Between 40° 10' N. lat. and 34° 27' N. lat.*

**Open Access**

- No Action: 2,000 lbs / 2 months
- Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for canary rockfish



- **Alternative 2: Implement No Action trip limits with the requirement that only legal non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) can be used; all other OA gear types (as defined at § 660.11) would be prohibited.**

**Limited Entry**

- No Action: 4,000 lb/ 2 months
- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region**

***Bocaccio Rockfish South of 40° 10' N. lat.***

*Between 40° 10' N. lat. and 34° 27' N. lat.*

**Open Access**

- No Action: 6,000 lbs./ 2 months
- Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for canary rockfish
- **Alternative 2: Implement No Action trip limits with the requirement that only legal non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) can be used; all other OA gear types (as defined at § 660.11) would be prohibited.**

**Limited Entry**

- No Action: 8,000 lb/ 2 months
- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region**

***Chilipepper Rockfish South of 40° 10' N. lat***

*Between 40° 10' N. lat. and 34° 27' N. lat.*

**Open Access**

- No Action: 6,000 lbs / 2 months
- Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for chilipepper rockfish
- **Alternative 2: Implement No Action trip limits with the requirement that only legal non-bottom contact gear types listed at [50 CFR 660.330\(b\)\(3\)](#) can be used; all other OA gear types (as defined at § 660.11) would be prohibited.**

**Limited Entry**

- No Action: 10,000 lb/ 2 months
- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region**

**Minor Nearshore Rockfish Complex:**

*Between 42° N. lat. and 40°10' N. lat.*

**Open Access**

- No Action: 2,000 lbs. / 2 months, of which no more than 75 lbs may be quillback rockfish, and of which no more than 75 lbs may be copper rockfish; 7,000 lbs. / 2 months for black rockfish
- **Alternative 1: Trip limit will be set at 0 lbs/ 2 months in this region for this complex**

**Limited Entry**

- No Action: 2,000 lbs/ 2 months, of which no more than 75 lbs may be quillback rockfish, and of which no more than 75 lbs may be copper rockfish.; 7,000 lbs / 2 months for black rockfish

- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region for this complex.**

*Between 40° 10' N. lat. and 34° 27' N. lat.*

**Open Access: Shallow Nearshore**

- No Action: 2,000 lbs. / 2 months
- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region for this complex**

**Open Access: Deeper Nearshore**

- No Action: 2,000 lbs. / 2 months, of which no more than 75 lbs may be quillback rockfish, and of which no more than 75 lbs may be copper rockfish
- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region for this complex**

**Limited Entry: Shallow Nearshore**

- No Action: 2,000 lbs. / 2 months
- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region for this complex**

**Limited Entry: Deeper Nearshore**

- No Action: 2,000 lbs / 2 months, of which no more than 75 lbs may be quillback rockfish, and of which no more than 75 lbs may be copper rockfish
- **Alternative 1: Trip limit will be set at 0 lbs / 2 months in this region for this complex**

***Lingcod***

*Between 42° N. lat. and 40°10' N. lat.*

**Open Access**

- No Action: 1,000 lbs. / month
- **Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for lingcod**

**Limited Entry**

- No Action: 2,000 lbs. / 2 months
- **Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for lingcod**

*Between 40° 10' N. lat. and 34° 27' N. lat.*

**Open Access**

- No Action: 700 lbs. / month
- **Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for lingcod**

**Limited Entry**

- No Action: 1,600 lbs. / 2 months
- **Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for lingcod**

***Cabezon***

*Between 42° N. lat. and 40°10' N. lat.*

**Open Access**

- No Action: Unlimited
- **Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for cabezon**

### **Limited Entry**

- No Action: Unlimited
- **Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for cabezon**

*Between 40° 10' N. lat. and 34° 27' N. lat.*

### **Open Access**

- No Action: Unlimited
- **Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for cabezon**

### **Limited Entry**

- No Action: Unlimited
- **Alternative 1: Trip limit will be set at 0 lbs. / 2 months in this region for cabezon**

### **Vermilion LE/OA South of 34° 27' N. Lat.**

In the course of the review of quillback rockfish impacts and the minor shelf actions above, the GMT uncovered that the vermilion projections were higher South of 34° 27' than in other areas of California. Table 6 shows projections of unaltered fishing and demonstrates that as the ACL contribution will be exceeded by the end of the year there will be a conservation concern with the vermilion rockfish. Therefore, the potential conservation benefit to taking action to reduce minor shelf rockfish trip limits South of 34° 27', or at the very least reducing the vermilion species specific trip limit, may be worth Council consideration. However, the team ran out of time to fully analyze the proposed reduction to the minor shelf rockfish complex trip limits to 1,500 lb/2 months, of which no more than 600 lbs may be vermilion for OA and 2,500 lb/ 2 months, of which no more than 1,500 lbs may be vermilion for LEFG (Currently OA is at 3,000 lb/2 months, of which no more than 1,200 lb may be vermilion and LEFG is at 5,000 lb/ 2 months, of which no more than 3,000 lb may be vermilion). The team only had time to analyze the vermilion component (Table 8). Option 1 projections would reduce the vermilion landings South of 34° 27' N. by 7.68 mt.

**Table 8: Options for trip limit decreases to vermilion rockfish South of 34° 27' N. lat. for both the Limited Entry (LE) and Open Access (OA) sectors (based on actual landings through August 2023 plus projected landings after August 2023).**

<b>Sector, Option</b>	<b>Species specific trip limit</b>	<b>Projected landings (mt)</b>	<b>Estimated total mortality of vermilion rockfish (mt) a/</b>
No Action			
LE	3,000lbs. / 2 mos.	36.66	79.22
OA	1,200 lbs. / 2 mos. may be vermilion	42.56	
Option 1			
LE	1,500 lbs. / 2 mos.	32.34	71.54
OA	600 lbs. / 2 mos.	39.20	

## **Informational Items**

### **Chinook Salmon Scorecard**

Table 9 shows Chinook salmon bycatch from groundfish fisheries as of September 9, 2023. The whiting sector has caught 3,910 Chinook salmon or 36 percent of the sector’s 11,000 Chinook salmon threshold. The non-whiting sector has caught 864 Chinook salmon or 16 percent of the sector’s 5,500 Chinook salmon threshold. Combined, both sectors have caught 4,774 Chinook salmon or 24 percent of the total 20,000 threshold. In the Trawl Gear Exempted Fishing Permit (EFP), 50 Chinook salmon have been retained and 68 Chinook salmon have been discarded as of August 17, 2023. NMFS will provide a full report on the Chinook salmon numbers from the Trawl Gear EFP at the April and November meetings.

**Table 9. Chinook salmon catch (numbers of fish) in 2023 as of September 9, 2023 in relation to the sector thresholds** (Source: PacFIN IFQ021 Combined Sector Salmon Bycatch ESA Report).

Sector <sup>a/</sup>	Sub-Sector	Catch To Date	% of Threshold	Total Threshold
Whiting	Catcher Processor	2,150	20%	<b>11,000</b>
	Mothership	478	4%	
	Shoreside	1,018	9%	
	Tribal	264 b/	2%	
	<b>Total</b>	<b>3,910</b>	<b>36%</b>	
Non-Whiting	Bottom Trawl	276	5%	<b>5,500</b>
	Midwater Trawl	69	1%	
	Tribal	19 b/	<0.01%	
	Fixed Gear	500 c/	9%	
	WA Rec.			
	OR Rec. + Longleader			
	CA Rec.			
<b>Total</b>	<b>864</b>	<b>16%</b>		
All groundfish fisheries & EFPs		4,892		

a/ Also, there is a reserve of 3,500 fish, in addition to the number of fish in the whiting and non-whiting thresholds.

b/ Current year tribal landings are estimated as the maximum of the historic landings for the last 5 years.

c/ GMT proposed assumption of annual mortality, which assumed maximum historical mortality (154) plus a 250 fish buffer from the 2017 BiOp and an additional 96 fish to account for some uncertainty in recreational salmon seasons; recreational estimates only apply to groundfish fisheries occurring outside of salmon seasons.

### Shortbelly Rockfish Scorecard

To help track shortbelly rockfish throughout the season, Table 10 provides the estimated mortality by each sector.

**Table 10. Estimated mortality in metric tons (mt) of shortbelly rockfish by sector, as of September 9, 2023.** (Source: PacFIN)

Sector	Estimated Mortality (mt)
At-Sea Catcher Processor	3.0
At-Sea Mothership	10.4
IFQ (non-whiting)	76.4
Shoreside whiting	109.4
Incidental/Miscellaneous	4.7
Treaty	N/A
<b>Total</b>	<b>203.9</b>
<b>Threshold</b>	<b>2,000</b>

\* = confidential data

N/A = no catch to date

## Pacific Spiny Dogfish Scorecard

Estimated mortality of Pacific spiny dogfish through September 10, 2023 is reported in Table 11. An estimated 166.6 mt of Pacific spiny dogfish has been taken to date.

**Table 11. Estimated mortality in metric tons (mt) of Pacific spiny dogfish by sector, as of June 15, 2023. (Source: PacFIN)**

Sector	Estimated Mortality (mt)
At-Sea Hake Catcher Processor	8.3
At-Sea Hake Mothership	6.0
IFQ (non-whiting)	119.5
Shoreside Hake a/	23.8
Non-Trawl	1.0
Incidental/Miscellaneous	3.4
Treaty	*
<b>Total</b>	<b>166.6</b>
<b>ACL</b>	<b>1,456</b>

\*confidential data

a/ For the shoreside whiting sector, landings account for roughly 90 percent of total catches, and for the bottom trawl, midwater rockfish, and non-trawl sectors, discards make up the majority of total catch.

## Rebuilding Species Scorecard

Table 12 shows yelloweye rockfish projections from groundfish fisheries as of September 10, 2023 in relation to the specified reference points. Projected impacts are updated based on the GMT's best estimates.

Off the top deductions include projections for Tribal, Research, EFP, and Incidental Open Access (IOA) set asides, which are currently specified in regulation. Tribal projected values are the tribes' best estimate of catch. Research set-asides are based on anticipated research needs of the International Pacific Halibut Commission, Washington Department of Fish and Wildlife, Oregon Department of Fish and Wildlife, California Department of Fish and Wildlife, and other projects. EFP amounts are set aside to accommodate anticipated applications and are estimates provided by the applicants and approved by the Council. The IOA values are the GMT's best estimate of impacts as analyzed in the 2023-2024 groundfish harvest specifications and management measure [Environmental Assessment](#).

**Table 12. Corrected allocations and projected mortality impacts (mt) of yelloweye rockfish as adopted for 2023 and specified in [G.8, Supplemental REVISED Attachment 1](#). Bolded rows reflect values that have been updated since the last Council meeting.**

Sector	Sub-sector	Projection (mt)	Reference Point Type	Reference Point Tracking Limit (mt)	Percent Attainment
<b>Grand Total a/</b>		<b>34.4</b>	<b>ACL c/</b>	<b>52.3</b>	<b>65.8%</b>
<b>Off the top b/</b>		<b>11.5</b>	<b>Set Asides</b>	<b>10.7</b>	<b>107.6%</b>
Trawl	CP	--	Trawl allocation	3.3	18.2%
	MS	--			
	Shoreside whiting	--			
	IFQ	0.6			
	<i>Sector Total</i>	<i>0.6</i>	<i>Trawl allocation</i>	<i>3.3</i>	<i>18.2%</i>
Non-trawl	Non-nearshore + Nearshore	3.9	HG	8.0	48.8%
	WA Rec.	4.2		9.8	42.9%
	OR Rec.	5.1		8.9	57.3%
	<b>CA Rec.</b>	<b>9.1</b>		11.6	<b>78.4%</b>
	<i>Sector HG Total</i>	<i>22.3</i>	<i>HG d/</i>	<i>38.3</i>	<i>58.2%</i>
	Non-nearshore + Nearshore	3.9	ACT	6.3	61.9%
	<b>WA Rec.</b>	<b>4.2</b>		<b>7.7</b>	<b>54.5%</b>
	OR Rec.	5.1		7.0	72.9%
	CA Rec.	9.1		9.1	100%
<i>Sector ACT Total</i>	<i>22.3</i>	<b>ACT</b>	<b>30.1</b>	<b>74.1%</b>	

a/ The Grand Total is the sum of the Trawl Sector Total and Non-trawl Sector ACT Total.

b/ off the top set asides: Tribal = 5 mt; EFPs = 0.14 mt; Research = 2.92 mt; Incidental Open Access = 2.66 mt

c/ ACL = Set asides + Trawl allocation + Non-trawl allocation.

d/ The non-trawl allocation is the sum of the non-trawl HGs, 50.9 mt.