

GROUNDFISH MANAGEMENT TEAM REPORT ON FINAL INSEASON ADJUSTMENTS FOR 2023 AND 2024, INCLUDING 2024 WHITING SET-ASIDES – PART I

The Groundfish Management Team (GMT) discussed the current status of groundfish fisheries and the need for any inseason adjustments during the November 2023 Pacific Fishery Management Council (Council) meeting. Below, the GMT details action items that have been brought to the GMT for Council consideration for 2024.

Action Items

Pacific Whiting Set-Aside

As part of this inseason action, the Council is tasked with selecting a value for the Pacific whiting set-aside to accommodate mortality in research and the pink shrimp fishery. Section 6.3.2.2 of the Pacific Coast Groundfish Fishery Management Plan (Groundfish FMP) specifies that set-asides for “recreational, research, and non-whiting fisheries,” in addition to set-asides to accommodate tribal whiting fisheries, are deducted before allocating the nontribal commercial share of Pacific whiting to the limited entry trawl sectors (i.e., shoreside, mothership, and catcher-processor). Therefore, higher research and pink shrimp set-aside reduces the amount of Pacific whiting allocated to the sectors that target the species.

The Pacific whiting set-aside for research and the pink shrimp fishery has been 750 mt since 2021, and annual mortality in those sectors has been well below that value since 2018 with the exception of 2021 (Agenda Item E.3, Attachment 1, November 2023). The majority of the 828 mt taken in 2021 was due to a research project focused on testing methods to distinguish Pacific whiting from mixed Pacific whiting and rockfish aggregations to improve future estimation of Pacific whiting biomass. In general, large fluctuations in research mortality appear to be linked to years in which the Northwest Fisheries Science Center (NWFSC) and Canada’s Department of Fisheries and Oceans (DFO) conduct specific research projects, which are years when the annual Joint U.S.-Canada Integrated Ecosystem and Pacific hake (i.e., Pacific whiting) Acoustic Trawl Survey is not conducted. To our knowledge the NWFSC does not plan to conduct any specific research projects in 2024 that would result in unusually large amounts of research catch, so **the GMT recommends setting the 2024 Pacific whiting set-aside for research and the pink shrimp fishery at 750 mt, the same as in 2023.**

Sablefish North of 36° N. lat.

In September 2023, the Council increased sablefish trip limits north of 36° N. lat. for both the Limited Entry Fixed Gear (LEFG) and Open Access (OA) sectors. The GMT received requests to analyze carrying over those higher trip limits into 2024 for the full year. For the LEFG North and OA North sectors north of 36° N. lat. (LEN and OAN, respectively), the sector-specific landings targets for sablefish north of 36° N. lat. will decrease by 35 mt and 57 mt in 2024, respectively, compared to the 2023 targets. Those decreases are due to the decrease in the annual catch limit (ACL) for sablefish north of 36° N. lat. For both LEN and OAN, Status Quo reflects the trip limits that were in place January to October for 2023 and would be the trip limits in regulation for January 2024 to October 2024 if the Council

does not take action at this meeting. Option 2 reflects the trip limits in place for November and December 2023. For both sectors, the GMT set Option 1 at trip limit values that achieve approximately 100 percent attainment of the landings target under an average price scenario. Note that the low, average, and high price scenarios are all based on sablefish prices in 2020-2023, so the “high” price scenario is still less than \$3.00 per pound of sablefish, whereas average bimonthly prices prior to 2020 were generally higher than \$3.00 per pound.

The SSC approved the use of the updated sablefish trip limit model at this meeting, so the GMT can use that model to inform future inseason actions beginning March 2024 at the earliest.

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

Trip limit options and projected 2024 landings for the LEN sector are shown in Table 1 below. Under Status Quo trip limits, LEN landings for the full year are projected to be 69-97 percent of the 2024 landings target. If the November-December 2023 trip limits (Option 2) were carried over into 2024, LEN landings are projected to be 129-182 percent of the 2024 landings target. Option 2 trip limits are higher than any historical trip limits in this sector prior to 2023. It is possible that actual landings in November and December of 2023 under those trip limits could better inform projections for inseason action at the March 2024 meeting at the earliest. However, one additional data point (i.e., bimonthly period) may not substantially change projections. At a minimum, the GMT could compare actual landings from November and December of 2023 with model estimates in March 2024 to assess how much the model under- or over-predicted landings under those higher trip limits. Recall, however, that the primary sablefish season was extended to December 31 starting in 2023, which may add to the model’s tendency to over-predict in period 6 of 2023 for the LEN sector.

The LEN model used to make projections shown in Table 1 overpredicted 2023 landings in January to October by 43 percent, with the largest overpredictions of total landings in periods 1 (January/February) and 5 (September/October).¹ The limited entry sablefish fishery, as a whole, has generally had a slow 2023 season largely due to greater opportunities in Alaska and declining West Coast sablefish markets. These factors could be driving the model’s tendency to over-predict 2023 landings and may continue to drive model overpredictions in 2024.

The GMT recommends the Status Quo trip limits of 4,500 lbs. per week and 9,000 lbs. per two months, because year-end attainment projections under those trip limits are 69-97 percent. The GMT will look at whether 2024 trip limits can be increased as early as March 2024 but expects that projections will be better informed in June at the earliest.

¹ To test the model’s 2023 out-of-sample prediction error, projections were made using a training data set through 2022 and model inputs (i.e., trip limits and sablefish prices) from 2023.

Table 1. Options for 2024 sablefish trip limits in the LEN sector. 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	264	317	370	380	69%	83%	97%
1	5,500 lbs./week not to exceed 11,000 lbs./2 months	315	378	442		83%	99%	116%
2	9,000 lbs./week not to exceed 18,000 lbs./2 months	491	592	692		129%	156%	182%

Open Access North of 36° N. Lat.

Projected 2023 landings for the OAN sector are shown in Table 2 below. Under Status Quo trip limits, landings for the full year are projected at 85-104 percent of the 2024 OAN landings target. If the November-December 2023 trip limits (Option 2) were carried over into 2024, landings are projected at 109-133 percent of the OAN target. Unlike LEN, participation in the OAN sector fluctuates widely throughout the year. Therefore, at the March 2024 Council meeting, actual landings from November and December of 2023 under Option 2 trip limits are not likely to sufficiently inform projections of landings in March to October of 2024.

The OAN model used to make projections shown in Table 2 overpredicted 2023 landings in January to October by 33 percent, with the largest overpredictions of total landings in periods 1 (January/February) and 5 (September/October).² The period 1 difference was predominantly driven by over-predicting participation whereas the period 5 difference was predominantly driven by over-predicting landings per vessel.

The GMT recommends the Status Quo trip limits of 3,000 lbs. per week and 6,000 lbs. per two months, because year-end attainment projections under those trip limits are 85-104 percent. The GMT will look at whether 2024 trip limits can be increased as early as March 2024 but expects that projections will be better informed in June at the earliest.

² To test the model's 2023 out-of-sample prediction error, projections were made using a training data set through 2022 and model inputs (i.e., trip limits and sablefish prices) from 2023.

Table 2. Options for 2024 sablefish trip limits in the OAN sector. 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	531	590	649	626	85%	94%	104%
1	3,250 lbs./week not to exceed 6,500 lbs./2 months	568	631	694		91%	101%	111%
2	4,000 lbs./week not to exceed 8,000 lbs./2 months	680	756	832		109%	121%	133%

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 landings in the LEFG fishery north of 42° N. lat. from 7,000 lbs. to 14,000 lbs. The no action alternative is currently resulting in regulatory discard for certain participants in the fishery. In an effort to increase opportunity, we modeled three different action alternatives in September inseason ([Agenda Item G.8.a, Supplemental GMT Report 5, September 2023](#)). Increases are modeled for both limited entry and open access and apply to both for equity reasons. During the September Council meeting the lingcod trip limits were increased for both the LE and OA sectors to 9,000 lbs. per bimonthly period and 4,500 lbs. per month, respectively. The GMT modeled the same three action alternatives, but this time for the full 2024 year.

The GMT 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. Therefore, the GMT recommended a slower ratcheting up of the trip limits to let our understanding of fishing behavior catch up. The initial and continued request is for an increase to 14,000 lbs. per bi-monthly period for 2024 (Table 3).

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	Nov-Dec
No Action	LE	N. of 42°	7,000 lbs. / 2 months					
	OA	N. of 42°	3,500 lbs. / month					
Option 1	LE	N. of 42°	9,000 lbs. / 2 months					
	OA	N. of 42°	4,500 lbs. / month					
Option 2	LE	N. of 42°	11,000 lbs. / 2 months					
	OA	N. of 42°	5,500 lbs. / month					
Option 3	LE	N. of 42°	14,000 lbs. / 2 months					
	OA	N. of 42°	7,000 lbs. / month					

The projections in Table 4 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 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. Given this lack of understanding of new entrants and new effort that is caused by this potential increase, **the GMT recommends that if the Council chooses to increase trip limits, they maintain that level for enough time for the GMT to gather data and understand what impacts potential effort shifts have on lingcod attainment and yelloweye rockfish.**

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 0.23 mt for the full 2024 year. All options fall well within the 6.3 mt non-trawl commercial annual catch target for yelloweye rockfish. **The GMT recommends Option 2, because the increase is expected to reduce regulatory discard and provide additional opportunity for industry members already in the fishery.**

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)
No Action	157.63	2,254.1	7%	1.40	3.9
Option 1	166.64	2,254.1	7%	1.48	3.98
Option 2	173.45	2,254.1	8%	1.54	4.04
Option 3	183.65	2,254.1	8%	1.63	4.13

Canary Rockfish LE/OA

The GMT received a request from the GAP to adjust 2024 canary rockfish trip limits for both LEFG and OA fisheries, north and south of 40° 10' N. lat. The request was to decrease LEN trip limits to 3,000 lbs. per 2 months, OAN to 2,000 lbs. per 2 months, LES trip limits to 3,500 lbs. per 2 months, and OAS to 1,500 lbs. per 2 months, in light of the recent stock assessment which will reduce the 2025 non-trawl commercial share to 53.4 mt. To prepare for significant reductions in 2025 the GMT finds merit in a stepwise reduction to the trip limits. This action would revert the trip limit increase from November 2022 inseason action to previous trip limits. The GMT projections do not take into account new entrants into the OA fishery that might choose to target canary rockfish, the potential change to RCA lines, nor new gear restrictions. The adjustment will provide a buffer to account for the potential shift from the nearshore and provide proactive adjustment looking to the 2025-2026 biennium.

Table 5. Options to decrease canary trip limits by period in the LEN, OAN, LES, and OAS sectors, associated landings projections, estimated mortality, and non-trawl commercial share attainment. Bolded row represents the GMT recommendation.

Option	Sector	Trip Limit	Landing Projection (mt)	Est. Total Landings (mt)	Est. Discard Mortality (mt)	Est. Total Mortality (mt)	% of the 2024 Non-trawl Commercial Share (122.4 mt)
No Action	LEN	4,000 lbs./2 mos.	5.4	31.3	0.8	32.0	26%
	OAN	2,000 lbs./2 mos.	3.9				
	LES	4,000 lbs./2 mos.	8.7				
	OAS	2,000 lbs./2 mos.	13.3				
Option 1	LEN	3,000 lbs./2 mos.	4.0	23.9	0.6	24.5	20%
	OAN	1,000 lbs./2 mos.	3.4				
	LES	3,500 lbs./2 mos.	6.5				
	OAS	1,500 lbs./2 mos.	10.0				

The GMT recommends Option 1 in Table 5, which decreases the trip limits for LEN to 3,000 lbs. per 2 months, OAN to 1,000 lbs. per 2 months, LES to 3,500 lbs. per 2 months, and OAS to 1,500 lbs. per 2 months.

Bocaccio Rockfish LE/OA South of 40° 10' N. Lat.

In June 2023, the GMT received a request from industry to adjust bocaccio rockfish trip limits for the OA fisheries south of 40° 10' N. lat. The request was to increase the trip limit from 4,000 pounds per period (2 month) to 6,000 pounds per period, which would match the OA chilipepper rockfish trip limit, a co-occurring species, from 40° 10' N. lat. to 34° 27' N. lat. This request was due to a concern that the bocaccio rockfish trip limit may prevent participants from attaining their chilipepper rockfish trip limit, since it is caught at a 1:1 ratio.

When planning for the 2024 season, the GAP reiterated the request for 6,000 pounds per period in the OA sector. The GAP indicated it would provide an alternate opportunity if the inseason reduction to vermilion/sunset rockfish trip limits persist into 2024. Table 6 provides estimated 2024 impacts from two bocaccio rockfish trip limit options where changes are applied to all periods. Option 1 increases the projected landings by 3.5 mt for LE and 14.4 mt for OA. The estimated total mortality from the requested increase would be approximately 23 percent of the non-trawl commercial share. The requested trip limit adjustment may help increase attainment of both chilipepper and bocaccio rockfishes while reducing regulatory discarding of bocaccio rockfish south of 40° 10' N. lat.

There is no evidence in West Coast Groundfish Observer Program (WCGOP) data that would indicate bocaccio rockfish south of 40° 10' N. lat. are caught alongside quillback rockfish. Furthermore, bocaccio rockfish are typically a midwater species that can be targeted with 12e gear (i.e., non-bottom contact troll and non-bottom contact stationary vertical jig gear) inside of the RCA to further minimize any potential impact with quillback rockfish. Given the potential increase

in effort on the shelf as a result of potential action in California, the GMT will monitor the landings closely to make sure they remain within the non-trawl commercial share. **The GMT recommends the Council select Option 1, which would increase bocaccio rockfish trip limits south of 40° 10' N. lat. to 8,000 lbs. per period and 6,000 lbs. per period for the LE and OA sectors, respectively, for the entirety of 2024.**

Table 6. Option to increase bocaccio rockfish trip limits south of 40° 10' N. lat. for 2024 in the LE and OA sectors, associated landings projections, estimated mortality, and non-trawl commercial share attainment south of 40° 10' N. lat.

Option	Sector	Trip Limit	Landing Projection (mt)	Est. Total Landings (mt)	Est. Discard Mortality (mt)	Est. Total Mortality (mt)	% of the 2024 Non-trawl Commercial Share (335.2 mt)
No Action	LE	6,000 lbs./2 mos.	15.5	57.6	0.2	57.8	17%
	OA	4,000 lbs./2 mos.	42.2				
Option 1	LE	8,000 lbs./2 mos.	19.0	75.4	0.2	75.7	23%
	OA	6,000 lbs./2 mos.	56.4				

Vermilion/Sunset Rockfish LE/OA South of 40° 10' N. Lat.

Within the Minor Shelf Rockfish Complex, the vermilion/sunset rockfish south of 40° 10' N. lat. Annual Catch Limit (ACL) contribution to the complex is projected to be exceeded as discussed in G.8.a GMT Supplemental Report 5, Table 6, and therefore additional trip limit reductions should be taken for 2024. The GMT notes that the majority of the vermilion/sunset rockfish catch is due to mortality in the recreational fleet, and inseason actions specific to the recreational fishery (likely a sub-bag reduction) will be taken at the March 2024 Council meeting, as most recreational fisheries off California are not scheduled to open until May 2024.

The GMT analyzed the commercial mortality of vermilion/sunset rockfish south of 40° 10' N. lat. and noted an increase in effort and landings within the OA sectors north and south of 34° 27' N. lat., with a considerable increase in participants reaching 95 percent of their monthly trip limit and an increase in total number of participants (Table 7). **In an effort to avoid exceeding the vermilion/sunset south of 40° 10' N. lat. ACL contribution, the GMT recommends Option 1 in Table 7, which would reduce OAN and OAS trip limits for 2024, due to the considerable increase in participation and, consequently, expected increases in mortality impacts from that sector.** Anticipated increases in effort in the LEN and LES sectors are not expected to put the ACL contribution at risk of being exceeded. The adjustment to OA trip limits will reduce vermilion/sunset rockfish mortality to better align with the respective ACL contribution to the complex.

Table 7. Option to decrease vermilion/sunset rockfish trip limits south of 40° 10' N. lat. for 2024 in the OA sectors, associated landings projections, and estimated mortality.

	Sector, Option	Trip Limit	Landing Projection (mt)	Est. Total Landings (mt)	Est. Discard Mortality (mt)	Est. Total Mortality (mt)
No Action	LEN	500 lbs./2 mos.	2.4	90.9	0.1	91.0
	OAN	400 lbs./2 mos.	17.8			
	LES	3,000 lbs./2 mos.	35.1			
	OAS	1,200 lbs./2 mos.	35.6			
Option 1	LEN	500 lbs./2 mos.	2.4	77.7	0.1	77.8
	OAN	300 lbs./2 mos.	13.4			
	LES	3,000 lbs./2 mos.	35.1			
	OAS	900 lbs./2 mos.	26.8			

Longleader (Holloway Gear) - Oregon Recreational Fishery

The longleader gear is used to harvest midwater rockfish seaward of the 40-fathom regulatory line. Due to low impacts to yelloweye rockfish and other benthic species, the bag limit for this fishery has been higher than the nearshore traditional bottomfish bag limit. In 2023 the bag limit was increased to 15 fish (initially 10) as a way to further entice anglers to participate in the offshore fishery to alleviate some of the fishing pressure from the nearshore reefs. For 2024, **the GMT recommends decreasing the Oregon longleader fishery bag limit to 12 fish** due to an increase of canary rockfish encountered in the fishery and to align with state inseason action.

Informational Items

Chinook Salmon Scorecard

Table 8 shows Chinook salmon bycatch from groundfish fisheries as of November 2, 2023. The whiting sector has caught 5,926 Chinook salmon or 54 percent of the sector's 11,000 Chinook salmon threshold in numbers of fish. The non-whiting sector has caught 942 Chinook salmon or 17 percent of the sector's 5,500 Chinook salmon threshold. Combined, both sectors have caught 6,868 Chinook salmon or 34 percent of the total 20,000 threshold. In the Trawl Gear Exempted Fishing Permit (EFP), 52 Chinook salmon have been retained and 80 Chinook salmon have been discarded as of October 23, 2023.

Table 8. Chinook salmon catch (numbers of fish) in 2023 as of November 2, 2023 in relation to the sector thresholds (Source: PacFIN IFQ021 Combined Sector Salmon Bycatch ESA Report).

Sector ^{a/}	Sub-Sector	Catch To Date	% of Threshold	Total Threshold
Whiting	Catcher Processor	3,285	30%	11,000
	Mothership	1,099	10%	
	Shoreside	1,278	12%	
	Tribal	264 b/	2%	
	Total	5,926	54%	
Non-Whiting	Bottom Trawl	280	5%	5,500
	Midwater Trawl	143	3%	
	Tribal	19 b/	<0.01%	
	Fixed Gear	500 c/	9%	
	WA Rec.			
	OR Rec. + Longleader			
	CA Rec.			
	Total	942	17%	
All groundfish fisheries & EFPs		6,868		

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 9 provides the estimated mortality by each sector.

Table 9. Estimated mortality in metric tons (mt) of shortbelly rockfish by sector, as of November 2, 2023. (Source: PacFIN)

Sector	Estimated Mortality (mt)
At-Sea Catcher Processor	4.4
At-Sea Mothership	10.7
IFQ (non-whiting)	76.8
Shoreside whiting	123.2
Incidental/Miscellaneous	0.3
Treaty	N/A
Total	215.4
Threshold	2,000

* = confidential data

N/A = no catch to date

Pacific Spiny Dogfish Scorecard

Estimated mortality of Pacific spiny dogfish through November 2, 2023 is reported in Table 10. An estimated 369.7 mt of Pacific spiny dogfish has been taken to date.

Table 10. Estimated mortality in metric tons (mt) of Pacific spiny dogfish by sector, as of November 2, 2023. (Source: PacFIN)

Sector	Estimated Mortality (mt)
At-Sea Hake Catcher/ Processor	119.1
At-Sea Hake Mothership	56.4
IFQ (non-whiting)	131.2
Shoreside Hake a/	51.8
Non-Trawl	1.8
Incidental/Miscellaneous	3.6
Treaty	5.8
Total	369.7
ACL	1,456

*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 11 shows yelloweye rockfish projections from groundfish fisheries as of November 2, 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 2023-24 groundfish harvest specifications and management measure Environmental Assessment.

Table 11. Corrected allocations and projected mortality impacts (mt) of yelloweye rockfish as adopted for 2023 and specified in G.8, Supplemental REVISED Attachment 1, September 2023. 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
Grand Total a/		33.7	ACL c/	52.3	64.4%
Off the top b/		11.4	Set Asides	10.7	106.9%
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>	3.3	18.2%
Non-trawl	Non-nearshore + Nearshore	3.9	HG	8.0	49.3%
	WA Rec.	4.2		9.8	42.9%
	OR Rec.	4.4		8.9	49.4%
	CA Rec.	9.1		11.6	78.4%
	<i>Sector HG Total</i>	<i>21.6</i>	<i>HG d/</i>	38.3	56.5%
	Non-nearshore + Nearshore	3.9	ACT	6.3	62.5%
	WA Rec.	4.2		7.7	54.5%
	OR Rec.	4.4		7.0	62.9%
	CA Rec.	9.1		9.1	100%
	<i>Sector ACT Total</i>	<i>21.6</i>	<i>ACT</i>	30.1	71.9%

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.