GROUNDFISH MANAGEMENT TEAM REPORT ON 2025-26 FISHERIES UPDATE NEW MANAGEMENT MEASURE FOR SHORTSPINE THORNYHEAD

Executive Summary

During the 2025-26 harvest specifications and new management measures over-winter period, the Groundfish Management Team (GMT) discovered that lower shortspine thornyhead annual catch limits (ACLs) anticipated for the 2025-26 biennium will be a notable constraint for the non-trawl sector north of 34°27' North latitude (N. lat.) with potential trip limits that would likely prevent a targeted fishery from being prosecuted. In order to keep mortality under the shortspine thornyhead non-trawl allocation north of 34°27′ N. lat., trip limits would need to be reduced so much that the fishery would not be able to effectively operate under either harvest specification alternative (P* of 0.4 [default] or preliminary preferred P* of 0.45). The estimated biomass of sablefish is at an all-time high, yet the demand/price per pound is very low, resulting in shortspine thornyhead sales being used to sell accompanied sablefish (personal communication with representatives from the Groundfish Advisory Subpanel [GAP]). The GMT also discovered that under either harvest specification alternative, there would be a high potential of shortspine thornyhead left unattained south of 34°27' N. lat. However, the GMT notes that Amendment 32 removed non-trawl sector restrictions in the Cowcod Conservation Areas (CCAs), which have not been fished in over 20 years. Therefore, the GMT anticipates an increase in shortspine thornyhead mortality south of 34°27′ N. lat. but not enough to exceed their harvest limits. In order to prevent shortspine thornyhead constraints north of 34°27′ N. lat. in the upcoming 2025-26 biennium, the GMT investigated a list of options for the Pacific Fishery Management Council's (Council) consideration as a new management measure for the 2025-26 biennium. The goal of any option presented below is to preserve both the north and south status quo targeted shortspine thornyhead fisheries. Over-winter analysis indicates that trawl vessels will likely be less impacted by shortspine thornyhead allocation reductions than non-trawl vessels, but bottom trawl vessels may be forced to prioritize targeting sablefish over Dover sole, as Dover sole is a co-occurring species with shortspine thornyhead.

The GMT identified two pathways forward (not in order of priority) to keep the targeted shortspine thornyhead fishery operational (*i.e.*, maintain the average mortality for the last five years). Both pathways would require a Fishery Management Plan (FMP) amendment to revise the allocation structure for shortspine thornyhead in Section 6.3.2.3. The GMT encourages the Council to prioritize the GAP's weigh-in on which pathway they prefer to move forward with, as each has pros and cons that should be considered.

The first pathway is to consider changing the trawl/non-trawl allocations for either or both north and south of the 34°27′ N. lat. management line (hereafter north and south). The second pathway was developed if the Council would like to preserve the allocation structure (as was set up through Amendment 21), but set harvest specifications in accordance with the coastwide stock definition. This pathway would set a coastwide ACL for shortspine thornyhead, and discontinue the use of separate ACLs north and south. The resulting trawl/non-trawl allocations would be the result of combining the north and south allocations in the base year and preserving that percentage into the future (further described below).

The GMT sees merit in doing both pathways in the future, but both cannot be implemented at the same time. Shortspine thornyhead allocations cannot be changed in conjunction with the removal of the management line because the regulations for area recombination in the trawl sector specify that total quota pounds issued must remain the same as if the management line were not removed, which means allocations can not be simultaneously changed. Additionally, under either pathway, the Council could consider converting shortspine thornyhead from FMP-specified allocations to 2-year allocations, similar to what was done via Amendment 29 (85 FR 54529) for blackgill rockfish within the southern slope complex south of 40°10′ N. lat., petrale sole, lingcod south of 40°10′ N. lat., and widow rockfish. Therefore, the GMT encourages the GAP to help prioritize one over the other for the Council.

Current Management and Allocation Structure of Shortspine Thornyhead

Shortspine thornyhead was recently defined as a coastwide stock via Amendment 31 (88 FR 78677). Shortspine thornyhead's allocation structure is laid out in Amendment 21 to the Pacific Coast Groundfish FMP (see page 64). It has a coastwide overfishing limit (OFL) and acceptable biological catch (ABC). Two area-specific ACLs and fishery harvest guidelines (HGs) are set for north and south of 34°27′ N. lat. The ACL apportionment method was historically based on data from the Northwest Fisheries Science Center West Coast Groundfish Bottom Trawl (WCGBT) survey between 2003-2012, however recently, the Council recommended that it be based on a five-year rolling average between 2003-2022 (Agenda Item E.5.a Supplemental GMT Report 1 November 2023). It is important to note that the management line at 34°27′ N. lat. has no known biological significance; it is used because historically, it was the southern extent of the WCGBT survey (see page 151 of the SAFE). However, even though it has no biological significance, it does separate two fisheries that are impacted by different allocation structures. For north of 34°27′ N. lat., 95 percent of the HG goes to the trawl sector, and 5 percent goes to the non-trawl sector.

It should be noted that, in 2022 the at-sea sector exceeded their shortspine thornyhead set-aside of 76 mt by 168 mt for a total of 244 mt, which was the main driver of increased trawl mortality in 2022, compared to years prior. The trawl allocation was not exceeded in 2022 because individual fishing quota (IFQ) attainment was low that year. However, in the future, because of the reduction in 2025-26 ACLs, if the at-sea sector exceeds their set aside the risk of exceeding the 2025-26 ACLs for all sectors could be higher than in the past and management measures may need to be taken. As will be detailed in the forthcoming at-sea set-aside analysis (April 2024), the shortspine thornyhead set-aside could be at risk of being exceeded in 2025-26 if Pacific whiting aggregations continue to drive midwater trawlers closer to the seafloor where interactions with shortspine thornyhead are high. Shortspine thornyhead catch in the at-sea fishery is generally caught in small amounts across many hauls, so the Council would likely have the ability to monitor bycatch trends ahead of the set-aside being exceeded.

For south of 34°27′ N. lat., a fixed tonnage of 50 metric tons (mt) goes to the trawl sector, and the remainder of the fishery HG goes to the non-trawl sector. Leaving fish unattained in the trawl sector south of 34°27′ N. lat. might merit a review of that allocation structure, as well. Table 1 below shows the harvest specifications and resulting allocations for the 2025-26 harvest specifications cycle, assuming Alternative 2 (Alternative harvest control rules). Even with the updated apportionment between the two areas, the result will not alter the area-specific ACLs enough to provide relief in the north and maintain the fishery in the south.

Table 1. 2025-26 trawl/non-trawl allocations under the PPA Alternative 2 P*0.45.

North of 34° 27′ N. lat.										
Year	ACL (mt)	Off-the-top Deduction (mt)	HG (mt)	Trawl Allocation (mt)	At-sea Set- aside (mt) a/	IFQ Allocation (mt)	Non-trawl Allocation (mt)			
2025	576	70	506	481	70	411	25			
2026	582	70	512	486	70	416	26			
South of 34	° 27′ N. lat.									
Year	ACL (mt)	Off-the-top Deduction (mt)	HG (mt)	Trawl Allocation (mt)	At-sea Set- aside (mt)	IFQ Allocation (mt)	Non-trawl Allocation (mt)			
2025	240	2	238	50	N/A	50	188			
2026	242	2	240	50	N/A	50	190			

a/ This is the status quo at-sea set aside of 70 mt that may change based on Council action; the other options are 50 and 100 mt, however, that change only impacts the IFQ allocation.

Purpose and Need of New Management Measure

The GMT notes in November, the GAP and GMT both recommended that consideration of Amendment 21 allocations be reviewed as a part of the upcoming intersector allocations (in the GMT report this was specified as shortspine thornyhead allocations, see <u>Agenda Item E.7.a Supplemental GAP Report 1 November 2023</u>, <u>Agenda Item E.7.a Supplemental GMT Report 3 November 2023</u>). However, with the overwinter analysis, the GMT discovered a problem that, if not addressed during this upcoming biennium, may prevent the prosecution of a targeted fishery.

The latest stock assessment for shortspine thornyhead (Agenda Item G.2 Attachment 4 September 2023) shows decreased biomass that will translate into restrictive ACLs and HGs for the 2025-26 biennium. Lower ACLs are expected to disproportionately impact the non-trawl sector over the trawl sector, and further, disproportionately impact non-trawl fishermen in the north over nontrawl fishermen in the south. Shortspine thornyhead in the south is and has recently been underattained in both the trawl and non-trawl sectors. For the non-trawl sector north, the sale of shortspine thornyhead is necessary to accompany the sale of sablefish. Sablefish are in such high supply and low demand that their price per pound is extremely low. In order to encourage the sale of sablefish, many non-trawl fishermen attach it as a condition of purchasing high-demand shortspine thornyhead. Under the PPA HCR and current allocation framework and management line at 34°27′ N. lat., the non-trawl allocation of 25 mt would necessitate the 2025 trip limits to be significantly reduced. The average mortality from 2018-2022 is estimated around 43 mt (Table 2), which is nearly double the proposed non-trawl allocation for 2025. As part of the overwinter analysis (document to follow), the GMT shows various options that would reduce the projected mortality; the highest possible trip limit accounting for average discard mortality for the limited entry fixed gear (LEFG) sector for 2025 would be 350 lbs. per 2 months, reduced from the 2024 trip limit in periods 4-6 of 2,500 lbs. per 2 months and a reduction of OA trip limits to 40 lbs. per 2 months north of 34° 27′ N. lat. from the 2024 trip limit of 50 lbs. per 2 months. We have focused on the impacts to the LEFG fleet in this report since that specific fleet is targeting shortspine thornyhead for a higher price per pound. This reduction could cause potential loss of income from shortspine thornyhead sales of \$82,490, 74 percent of which would be potentially lost to the participants operating in between 34°27′ and 40°10′ N. lat. assuming that fishermen continue to harvest the lower trip limits. However, it is not clear whether that low volume would stop the targeting of shortspine thornyhead, leading to even greater economic losses. This potential loss of income also does not account for the constraint that this reduction would also have on the marketability of non-trawl sablefish in that area. GAP members have indicated that the potential low trip limits would effectively eliminate the targeted shortspine thornyhead fishery. This reduction is also likely to shift effort south of the management line because shortspine thornyhead is currently the most desirable and highest price fish and therefore worth pursuing away from homeports.

There is some uncertainty surrounding the shortspine thornyhead mortality in 2025-26 and beyond. Starting in 2024, the Council and NMFS removed non-trawl sector restrictions in the CCAs, which included approximately 4,600 square miles of fishing grounds south of 34° 27' N. lat. that have not been fished in over 20 years where shortspine thornyhead are known to exist. This created additional opportunities for participants in both the trawl and non-trawl sectors to reach their respective trip limits. Prior to removing non-trawl restrictions in the CCAs, 51.2 percent of shortspine thornyhead south of 34° 27′ N. lat. were caught within the CCAs. The GMT anticipates an increase in effort in the area of the CCAs, as previous entrants in the north come down to take advantage of this historic shortspine thornyhead fishing area/higher trip limits as well as more participants in the south taking their entire limit. With prices at an all time high in the south, and an additional 51.2 percent of fishing access, it is expected that mortality of shortspine thornyhead may increase if markets continue as they have been in 2023. Since the CCAs were implemented, mortality peaked in 2011 at 183 mt. Based on anecdotal conversations with the GAP, the recent downturn of landings in the south is in part driven by the downturn in hook-and-line sablefish fishery and exacerbated by COVID-19 as some of the smaller live fish businesses have ceased to exist. However, it is believed that they may return with the high price for live shortspine thornyhead in the south. The Council may want to consider these uncertainties when analyzing the options described below.

Initially, the GMT investigated options for moving expected unused shortspine thornyhead tonnage from the south to the north via inseason action, however the management structure of having two area-specific ACLs (north and south) does not allow for this option. If unused quota from the south were to be moved to the north inseason, then the ACL in the north would also need to be increased to mitigate the risk of exceeding the ACL; the current regulations do not provide a process for this. Changing an ACL is not a measure appropriate for an inseason process since a coastwide ACL must first be set in order to transfer unused fish across a management line.

Therefore, the GMT investigated two pathways for a new management measure in the 2025-26 harvest specifications and management measures action to address this issue immediately. The third pathway would be to take no action at this time, and consider this issue outside of the harvest specifications cycle.

- 1. Pathway One: Trawl/Non-Trawl Re-allocation
- 2. Pathway Two: Removal of the Management Line at 34°27′ N. lat.
- 3. Pathway Three: Consider Issue Outside the Harvest Specifications Process

Table 2. Table showing shortspine thornyhead mortality since 2018, as well as the landings from 2023. Source: GEMM, PacFIN data pull 1/10/2024

		Shortspine thornyhead (North of 34°27' N. lat.) (mt)	Non-trawl Allocation (North of 34°27' N. lat.) (mt)	Percent Attainment (North of 34°27' N. lat.)	Shortspine thornyhead (South of 34°27' N. lat.) (mt)	Non-trawl Allocation (South of 34°27' N. lat.) (mt)	Percent Attainment (South of 34°27' N. lat.)
	Landings (mt)	57.2		82%	108.0		
2018	Discard Mortality (mt)	9.7	82.0		2.8	805.7	14%
	Landings (mt)	45.8		62%	80.2		10%
2019	Discard Mortality (mt)	4.5	81.0		3.2	838.8	
	Landings (mt)	31.9		42%	50.3	831.8	
2020	Discard Mortality (mt)	1.6	80.2		1.4		6%
	Landings (mt)	32.1		51%	39.9	748.8	
2021	Discard Mortality (mt)	2.6	67.5		0.7		5%
	Landings (mt)	25.6			32.5		5%
2022	Discard Mortality (mt)	1.5	65.7	41%	0.0	680.3	
Average	Landings (mt)	38.52			62.2		
2018 - 2022	Discard Mortality (mt)	3.98			1.6		
	Landings (mt)	31.0			29.1	662.7	
2023	3 year average discard mortality	1.9	64.0	51%	1.8		5%

Pathway One: Trawl/Non-Trawl Re-allocation

The Council could consider revisiting the allocation structure both north and south of the 34°27′ N. lat. management line (*i.e.*, the 95:5 ratio in the north and the 50 mt:remainder yield in the south, to trawl:non-trawl respectively, Figure 1). Both allocations would have been reviewed at the upcoming inter-sector allocation review irrespective of a new management measure to change them in the harvest specifications process. This pathway would require amending the allocations in Table 6-1 of the Pacific Coast Groundfish FMP (see page 64) but would maintain it as a species with an FMP-specified allocation. Additionally, the Council could consider converting shortspine thornyhead to a 2-year allocation species that is only specified in regulations. However, the Council can revisit both FMP-specified allocations and 2-year allocations at its discretion.

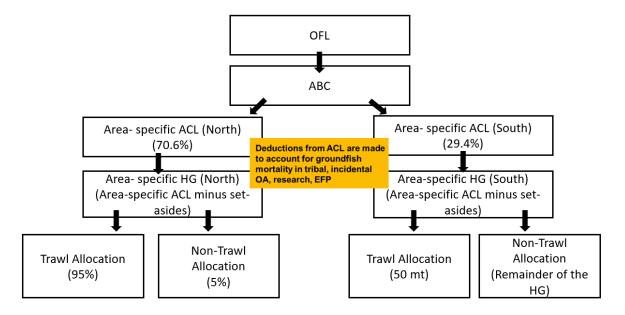


Figure 1. Status Quo Option 1 Allocation Scheme.

Table 3 shows the trawl and non-trawl mortality of shortspine thornyhead north which indicates that both the trawl and non-trawl 5-year average of recent mortality would be above the 2025-26 sector allocations (490 mt and 35 mt respectively). Table 4 shows the trawl and non-trawl mortality of shortspine thornyhead south, which indicates that there could be some benefit to changing the allocation structure to have less unattained fish in the trawl sector where mortality has been 0 mt since 2017. Noting the uncertainty mentioned above, the GMT anticipates an increase in shortspine thornyhead mortality south of 34° 27′ N. lat. due to the additional opportunity in the south, but not an exceedance in their harvest limit. However, as illustrated above the non-trawl sector north of 34°27′ N. lat. has developed shortspine thornyhead into a highly desirable targeted fishery compared to a species that is caught incidentally in the trawl sector. This targeted fishery potentially exceeds the minimum allocation of 5 percent of the fishery harvest guideline that was allocated to non-trawl sectors through Amendment 21 as shortspine was a trawl-dominant stock. There is some indication that the trawl sector can avoid shortspine thornyhead if necessary, based on GMT analysis of the catch relationships between Dover sole-thornhead-sablefish complex species since 2018, but shortspine thornyhead IFQ allocation reductions may still limit bottom trawl vessels' ability to utilize Dover sole, an important target species. If sablefish markets are not a limitation in 2025-26, bottom trawl vessels may be able to offset those impacts by instead

targeting sablefish in deeper waters. Details of this analysis will be in the upcoming harvest specifications and new management measures analysis document (in April).

Table 3. Trawl/non-trawl allocations, mortality, and attainments for shortspine thornyhead north of 34° 27′ N. lat. from 2011-2026. 2025-26 ACLs and subsequent allocations are from the alternative 2 or P* of 0.45. Source: GEMM total mortality, PacFIN for 2023 landings data and 3 year-average of discard mortality from the GEMM.

		Fishery HG (mt)	Total		Trawl		I	Non-Traw	l
Year	ACL (mt)		Directed Groundfish Mort. (mt)	Sector Alloc. (mt)	Sector Mort. (mt)	Sector attain.	Sector Alloc. (mt)	Sector Mort. (mt)	Sector attain.
2011	1,573	1,528	804	1,452	733	50%	76	71	93%
2012	1,556	1,511	788	1,435	724	50%	76	65	86%
2013	1,540	1,481	924	1,407	863	61%	74	61	83%
2014	1,525	1,466	762	1,392	708	51%	73	53	73%
2015	1,745	1,686	785	1,601	736	46%	84	48	57%
2016	1,726	1,667	806	1,583	757	48%	83	49	59%
2017	1,713	1,654	836	1,571	771	49%	83	65	78%
2018	1,698	1,639	765	1,557	698	45%	82	67	82%
2019	1,683	1,618	659	1,537	609	40%	81	50	62%
2020	1,669	1,604	408	1,524	374	25%	80	34	42%
2021	1,428	1,350	437	1,282	402	31%	67	35	51%
2022	1,393	1,315	641	1,249	613	49%	66	27	41%
2023*	1,359	1,281	304	1,217	273	22%	64	31	48%
2024	1,328	1,250		1,187			62		
2025	576	506		481			25		
2026	582	512	C 1	486	1 1' 1	. 1 .1	26	1.	1 1

^{*2023} value is an estimate of total mortality using the landings data plus the three year average discard mortality value.

Table 4. Trawl/non-trawl allocations, mortality, and attainments for shortspine thornyhead south of 34° 27′ N. lat. from 2011-2026. 2025-26 ACLs and subsequent allocations are from the alternative 2 or P* of 0.45. From 2017 on those zeros constitute no mortality. Source: GEMM total mortality, PacFIN for 2023 landings data and 3 year-average of discard mortality from the GEMM.

			Total	Trawl			Non-Trawl		
Year	ACL (mt)	Fishery HG (mt)	Directed Groundfish Mort. (mt)	Sector Alloc. (mt)	Sector Mort. (mt)	Sector attain.	Sector Alloc. (mt)	Sector Mort. (mt)	Sector attain.
2011	405	363	192	50	9	18%	313	183	58%
2012	401	359	129	50	1	2%	309	128	41%
2013	397	355	113	50	4	8%	305	109	36%
2014	393	351	96	50	3	6%	301	93	31%
2015	923	881	80	50	1	2%	831	79	9%

2016	913	871	114	50	2	4%	821	112	14%
2017	906	864	146	50	0	0%	814	146	18%
2018	898	856	111	50	0	0%	806	111	14%
2019	890	889	84	50	0	0%	839	84	10%
2020	883	882	52	50	0	0%	832	52	6%
2021	756	749	41	50	0	0%	699	41	6%
2022	737	730	33	50	0	0%	680	33	5%
2023*	719	712	28	50	0	0%	662	28	4%
2024	702	695		50			645		
2025	240	238		50			188		
2026	242	240		50			190		

^{*2023} value is an estimate of total mortality using the landings data plus the three year discard average mortality value.

Pathway Two: Removal of the Management Line at 34°27′ N. lat.

The Council could consider removing the management line at 34°27′ N. lat., set a coastwide ACL, combine off-the-top deductions and HGs, and combine the non-trawl allocations and perform a recombination (see below) for the trawl allocations from north and south of 34°27′ N. lat. This option would maintain the allocation values to each sector, but would provide flexibility in setting trip limits because under-attained shortspine thornyhead from the south can be more fluidly used in the north. This pathway would require amending the management structure for shortspine thornyhead in the Pacific Coast Groundfish FMP at Section 6.3.2.3 to set a coastwide ACL for shortspine thornyhead (as opposed to two separate area-specific ACLs north and south for the 2025-26 harvest specifications cycle and beyond). Under this proposal, the Council could choose to maintain shortspine thornyhead as an FMP-specified allocation (i.e., the result of the allocation percentage outlined in the math above for the single stock coastwide) or make it a 2-year allocation stock (although, the Council can revisit both at their discretion). Using 2024 specifications as the base year (because the re-combination regulations are based off current quota share [QS] holdings), if the Council chose this pathway, the following process would occur once for 2025-26, and into the future this stock would be managed with coastwide trawl allocation percent/non-trawl percent based on this calculation (until changed).

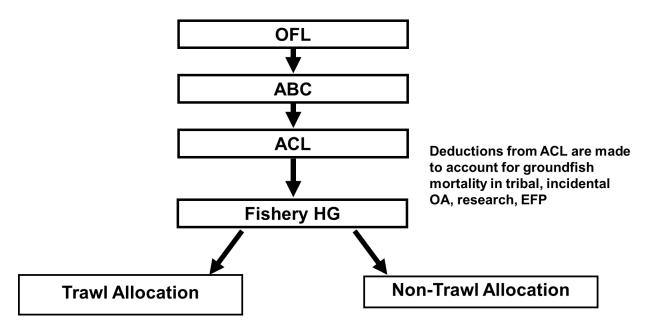


Figure 2. Coastwide ACL. Once this base year calculation was decided, this schematic is now how the trawl/non-trawl allocation will be decided into the future (pending further Council action).

Base Year (2024) Calculation for Pathway Two:

Coastwide OFL = 3.162 mt

Coastwide ABC = 2,030 mt

Coastwide ACL: 1,328 mt (north of 34°27' N. lat.) + 702 mt (south of 34°27' N. lat.) = 2,030 mt (i.e., set equal to the ABC)

Coastwide off-the-top deductions: tribal set-aside (50 mt) + north research catch set-aside (10.48 mt) + north incidental open access set-aside (17.82 mt) + south research catch set-aside (0.71 mt) + south incidental open access set-aside (6 mt) = **85.01 mt**

Coastwide HG: ACL (2,030 mt) - off-the-top deductions (85.01 mt) = 1,945 mt

The result would be a coastwide ACL with coastwide off-the-top deductions and a coastwide HG. Allocations would still be calculated from separate HGs for this one-time process because allocation percentages flow from the HG (see calculations below). Federal regulations provide a process to follow for area recombination in the trawl sector (see next section), which National Marine Fishery Service (NFMS) would follow when re-issuing trawl QS based on the new coastwide trawl allocation. Options for the non-trawl sector are discussed further below.

Amendment 20 Regulatory Process for Trawl Area Recombination

The "component rule" for Amendment 20 to the Pacific Coast Groundfish FMP (75 FR 78344; January 11, 2011) implemented the regulations at 50 CFR 660.140(c)(3)(vii)(A)(2), which provide a process to follow when two management areas are combined for an IFQ species. The regulations require that when re-combining two areas, the QS or individual bycatch quota (IBQ) held by individuals in each area will be adjusted proportionally such that: 1) the total QS or IBQ for the

area sums to 100 percent, and 2) a person holding QS or IBQ in the newly created area will receive the same amount of total QP or IBQ pounds as they would if the areas had not been recombined. Given these conditions, the new trawl allocation amount will be adjusted as follows:

Current Coastwide Trawl Allocation Formulas:

Trawl Allocation North of 34°27' N. lat.=Harvest guideline North of 34°27' N. lat. *0.95= 1,187 mt in 2024

Trawl Allocation South of 34°27' N. lat. = 50 mt in 2024

Sum of the Trawl allocations N and S of $34^{\circ}27$ ' N. lat= Trawl Allocation North of $34^{\circ}27$ ' N. lat. + Trawl Allocation South of $34^{\circ}27$ ' N. lat. = 1,237 mt in 2024

Proposed coastwide trawl allocation formula for future bienniums: 1,237 mt (2024 allocation) / 1,945 mt (sum of 2024 (base year) N and S HG) = **64 percent of future coastwide HG**

QS would be proportionally re-calculated by NMFS based on the summed coastwide allocation.

Options for Non-Trawl Adjustments

Although federal regulations provide a process for re-combining management areas for the trawl sector and proportionally adjusting QS holdings if a coastwide trawl allocation is created, this process of recombination for the non-trawl sector is not outlined in federal regulations, therefore the GMT puts forward one way this could be accomplished. The non-trawl allocation could be established by the same recombination method as the trawl sector described above:

Current Non-Trawl Allocation Formulas:

Non-Trawl Allocation North of 34°27' N. lat. = Harvest guideline North of 34°27' N. lat. * 0.05=63 mt in 2024

Non-Trawl Allocation South of 34°27' N. lat. = Harvest guideline South of 34°27' N. lat. - 50 mt = 645 mt in 2024

Sum of the Non-Trawl allocations N and S of $34^{\circ}27$ ' N. lat. = Non-Trawl Allocation North of $34^{\circ}27$ ' N. lat. + Non-Trawl Allocation South of $34^{\circ}27$ ' N. lat. = **708 mt**

Proposed Non-trawl allocation for future bienniums: 708 mt (2024 allocation) / 1,947 mt (sum of 2024 N and S HGs) = 36 percent of coastwide HG

If the Council were to move forward with pathway two in the future, biennial allocations will be calculated using the 64 percent trawl/36 percent non-trawl allocation. Table 5 shows what future breakdowns could be if set-asides remain the same as the proposed 2025-26 set-aside of 72 mt.

Table 5. This table represents what the future breakdowns could be if the set-asides remain the same from 2025 on (72 mt). The coastwide Non-Trawl allocation has been calculated with the 36 percent (method outlined above on how the 36 percent was derived). The trawl allocation is the coastwide HG minus the coastwide non-trawl allocation. Also shown is the status quo way of calculating the non-trawl allocation to the North and South of 34°27' N, lat.

Year	Coastwide HG (mt)	HG N.	HG S.	Coastwide Non-Trawl Allocation (mt) 36% 2024 base year	Non-Trawl Allocation (mt) N.	Non-Trawl Allocation (mt) S.	Sum of Non- Trawl allocations N. and S. (status quo method with the line)
2025	744	506	238	268	25	188	213
2026	752	512	240	271	26	190	216
2027	762	519	243	274	26	193	219
2028	771	525	246	278	26	196	222
2029	779	531	248	280	27	198	225
2030	787	536	251	283	27	201	227
2031	794	541	253	286	27	203	230
2032	800	546	254	288	27	204	232
2033	805	549	256	290	27	206	233
2034	811	553	258	292	28	208	235

Beyond the coastwide allocation, the GMT scoped two options for adjusting the management structure for the non-trawl sector:

Option 1: **Set coastwide trip limits** for the LEFG and open access (OA) sectors according to a coastwide allocation.

Option 2: **Set sub-area trip limits** for the LEFG and OA sectors north and south of 34°27′ N. lat. based on the combined coastwide non-trawl allocation. This option would allow preservation of opportunity north or south of the management line. If the Council requests that the GMT further analyze this option, the GMT notes that annual catch targets or harvest guidelines could be used as an accountability measure to track mortality.

Pathway Three: Consider Issue Outside the Harvest Specifications Process

The Council could choose to take no action during the harvest specifications process and, instead, revisit shortspine thornyhead more holistically at the inter-sector allocation review. The Council could alternatively add a holistic review to the workload prioritization list, which would review both the allocation structure and the management line at the same time. However, this pathway would not solve the immediate need and likely prevent the prosecution of a targeted fishery for a few years.

Summary of Council Decisions

The GMT requests that the Council provide guidance on which pathway to pursue for further analysis. If the Council recommends that a new management measure be added to the 2025-26 harvest specifications and management measures action, the GMT can incorporate the groundwork from this report into the Council Analytical Document and have a full analysis prepared in time for final action on 2025-26 management measures in June 2024. The GMT plans to meet with GAP representatives at the March 2024 meeting to discuss the pros and cons of each option. The GMT encourages the Council to weigh the GAP's priorities when deciding what pathway, if any, they want to move forward with. Given all the uncertainty around potential effort shifts, the Council could re-review whatever pathway they choose at the next biennial cycle.

Pathway 1: Trawl/Non-Trawl Re-allocation

- Requires an FMP amendment to change the trawl/non-trawl allocations in Table 6-1 of FMP Section 6.3.2.3.
 - Though not required, the Council could choose to additionally convert shortspine thornyhead to a 2-year allocation stock.
 - Requires re-negotiation among industry representatives.

Pathway 2: Remove the Management Line at 34°27' N. lat.

- Requires the Council to recommend a coastwide ACL for shortspine thornyhead.
- Requires an FMP amendment to revise Section 6.3.2.3 introductory paragraph to clarify that a coastwide ACL is set for shortspine (as opposed to two separate ACLs); revises the allocation structure in Table 6-1 but preserves the historical sharing between sectors.
 - Allocation percentages for future bienniums would be 64 and 36 percent for the trawl and non-trawl sectors, respectively, until the Council recommends changing it
 - Though not required, the Council could choose to additionally convert shortspine thornyhead to a 2-year allocation stock.
- Requires NMFS to reissue QS for the trawl sector in accordance with the Area Recombination regulations at 50 CFR 660.140(c)(3)(vii)(A)(2).
- Requires the Council to decide on a method to set trip limits for the non-trawl sector (Option 1 and 2 presented under Pathway 2 above).

Pathway Three: Consider Issue Outside the Harvest Specifications Process

- Include in the inter-sector allocation review as part of the catch shares review, or place on the workload prioritization list if a different pathway is preferred or if the Council prefers to consider both pathway one and two at one time.
- Does not solve the immediate need and would likely prevent the prosecution of a targeted fishery for a few years.

PFMC 02/26/24