GROUNDFISH MANAGEMENT TEAM REPORT ON INSEASON UPDATES TO CANARY ROCKFISH, PETRALE SOLE, AND SHORTSPINE THORNYHEAD

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Executive Summary

The Groundfish Management Team (GMT) reviewed landings by sector for the following three species: canary rockfish, petrale sole and shortspine thornyhead, in preparation for the June Pacific Fishery Management Council (Council) meeting. The 2025 coastwide annual catch limits (ACL) for these three species were reduced by more than 700 metric tons (mt) each from the prior year (*i.e.*, decreases ranging from 28-60 percent), requiring fisheries to respond to three new constraining species. These reductions are already constraining fisheries by reducing effort or forcing vessels to shift their targeting practice, as compared to years past. Additionally, industry members have expressed alarm regarding rates of catch of these species so far in 2025, relative to their harvest limits. The GMT explored trends in the data to identify whether catch rates in 2025 appear to exceed what was expected when establishing the 2025-26 harvest specifications and management measures even with the anticipated reductions. For all three of these species, catch-only projection updates are scheduled for 2025 and may provide some relief to commercial fisheries, but due to the current regulatory framework, the resulting harvest limits will not be updated until January 1st, 2027.

The GMT's analysis in this report indicates that shortspine thornyhead have been caught in higher amounts across all groundfish sectors except for the individual fishing quota (IFQ) shoreside whiting sector which has had a slow start to the season. However, when comparing trips targeting sablefish-a co-occurring species-with those that do not (based on a 25 percent threshold), shortspine thornyhead landings have only been tracking higher in trips targeting sablefish. This suggests that higher shortspine thornyhead landings could be at least partially driven by higher sablefish allocations. Landings per trip of petrale sole and shortspine thornyhead both started out high at the beginning of the year before leveling out to more typical rates. However, this appears somewhat typical for petrale sole. Additionally, the fishery harvest guideline (FHG) for petrale sole and shortspine thornyhead is being attained at a faster pace than the previous four years, whereas attainment has been slower for canary rockfish. The quota pound prices for canary rockfish and petrale sole in the IFQ fishery are higher than previous years, indicating that quota pound holders are likely more reluctant to trade in order to cover their bycatch or to protect their access to a target stock, as was predicted. There have not been enough shortspine thornyhead trades in 2025 to inform a comparison, but the lack of trades may also suggest that participants are choosing to retain their quota as long as possible to cover bycatch.

In summary, the GMT could not identify any unforeseen changes to the fishery for canary rockfish and petrale sole, and there may be unforeseen changes to shortspine thornyhead encounters in all groundfish sectors, but it is difficult to determine when relying only on inseason fish ticket information and considering other changes in the fishery such as higher sablefish allocations and shifting target practices for other reasons. It is possible that high rates of encounters at the start of the year for both petrale sole and shortspine thornyhead induced IFQ fishery participants to actively avoid these species or at least slow their rate of catch to avoid prematurely running out of quota. The GMT does not anticipate that any of the three species' ACLs are at risk of being exceeded because of existing management measures to prevent exceedance of allocations, but petrale sole is already a highly attained species so would be at greatest risk of the three.

Canary Rockfish

The canary rockfish coastwide ACL decreased from 1,296 mt in 2024, to 571 mt in 2025 (*i.e.*, a 56 percent decrease). This decrease consequently led to the implementation of reduced bag (and sub-bag) limits in recreational fisheries, lower trip limits in the non-trawl commercial fisheries, and reduced annual vessel limits (AVLs) and quota availability for individual fishing quota (IFQ) vessels in commercial fisheries for the 2025-26 biennium. Table 1 shows how each fishery is tracking compared to their specified harvest limits and set-asides, where estimated mortality in the commercial sectors (except at-sea) is a combination of landings as of May 19 and an estimate of recent average discard mortality prorated by the day of year (i.e., May 19). Seven percent of the fishery Harvest Guideline and 17 percent of the ACL has been attained as of May 19, 2025.

Canary rockfish landings (mt) are tracking notably lower through May 18 in the IFQ bottom trawl and IFQ midwater rockfish sectors compared to prior years (Table 2). The IFQ shoreside whiting sector has had a slow start in 2025, so it is difficult to compare that sector's 2025 trend to prior years. The primary sablefish fishery has also had a slow start to the season this year but has landed more canary rockfish so far this year than most prior years. The limited entry fixed gear (LEFG; i.e., daily trip limit [DTL]) and open access (OA) sectors are both tracking higher in 2025 compared to previous years, likely due to shifts in effort towards shelf target species, and the nearshore sector is tracking lower in 2025 although landings are generally low in all fixed gear sectors. The two at-sea Pacific whiting sectors are not shown in Table 2, because prior to 2023, the Pacific whiting season began May 15 as opposed to the current start date of May 1, and in 2025, only one sector has been active as of May 23 with minimal catch of canary rockfish (0.05 mt).

Canary rockfish are occasionally caught as "lightning strikes" in the trawl fishery, making it difficult for IFQ vessels to plan how and when to use their quota during the fishing year. One lightning strike in the IFQ bottom trawl fishery already occurred in April 2025 off Oregon. Generally, when lightning strikes like this occur early in the year, vessels are forced to shift to other target species or even to non-groundfish fisheries, because they do not have enough quota to cover further bycatch events under their current target strategy. IFQ vessels are often less inclined to trade canary rockfish quota under low allocations in order to protect their ability to fish throughout the year in the event of an unexpected lightning strike. They may also not target co-occurring species as a tactic to avoid canary rockfish, resulting in under-attainment of other stocks. This precautionary strategy generally means that, while individual vessels are impacted by quota

constraints, the overall IFQ allocation for canary rockfish (and co-occurring species) is likely to be under-attained by year-end.

Table 1. Year-to-date estimated total mortality in metric tons (mt) with year-end harvest limits or set-asides (mt) and percent attainment for canary rockfish as of May 19, 2025. Estimated mortality in all non-treaty commercial sectors are based on landings through May 19 combined with the recent three-year (2021-2023) average discard mortality estimate prorated by day of year, except at-sea sectors and recreational fisheries which record all catches (retained and discarded) inseason.

Sector	Estimated Mortality (mt)	Harvest Limits or Set-asides (mt)	Percent Attainment	
Trawl	23.5	367.6	6%	
At-Sea CP	0.1	20.0	0.29/	
At-Sea MS	-	20.0	0.370	
IFQ (shoreside whiting)	0.3	247.6	70/	
IFQ (non-whiting)	23.1	547.0	/%0	
Non-Trawl	11.8	140.7	8%	
Non-Nearshore	9.0	50.7	2004	
Nearshore	0.9	50.7	2070	
WA - Recreational a/	0.0	17.3	0%	
OR - Recreational b/	1.9	26.0	7%	
CA - Recreational c/	0.0	46.7	0%	
Fishery Harvest Guideline	35.3	508.3	7%	
Research and Incidental d/	12.9	12.9	100%	
Treaty d/	50	50	100%	
Total (Harvest Limit = ACL)	98.2	571.2	17%	

a/ Estimates not yet available

b/ Estimates available through April

c/ Estimates available through March

d/ Full set-aside attainment is projected

 Table 2. Canary rockfish landings (mt) by directed commercial groundfish sector through May 18 for all years, 2018-2025.

Year	IFQ Bottom Trawl	IFQ Midwater Rockfish	IFQ Whiting	Primary Sablefish	Limited Entry DTL	Nearshore	OA Fixed Gear
2018	51.7	9.2	0.3	0.0	0.1	1.6	0.6
2019	50.2	20.7	0.7	0.0	0.2	2.0	0.7
2020	49.3	12.7	0.0	-	0.1	3.5	1.7
2021	87.2	22.4	25.2	*	0.6	4.4	5.2
2022	43.0	64.1	3.2	1.1	0.7	3.7	4.8
2023	73.8	73.6	51.5	0.0	0.2	3.4	4.2
2024	39.1	30.1	0.1	0.1	0.5	1.2	5.0

Year	IFQ Bottom Trawl	IFQ Midwater Rockfish	IFQ Whiting	Primary Sablefish	Limited Entry DTL	Nearshore	OA Fixed Gear
2025	18.9	3.6	0.2	1.1	1.9	0.9	5.8

*confidential

Table 3 below shows that canary rockfish quota pound prices in the IFQ fishery have nearly doubled in 2025 compared to previous years, suggesting a higher demand within the quota market for canary rockfish quota pounds. Only 3 trades have been made so far as of May 19, 2025, whereas 6-10 trades were made by May 19 in 2021-2024. Landings of most IFQ target species - sablefish, Dover sole, widow rockfish, and bocaccio – are tracking higher through May 22nd of this year than last year, and for some species higher than all other years since at least 2021. The exceptions are yellowtail rockfish north of 40° 10' N. lat., Pacific whiting, and petrale sole, which are all tracking lower this year. The Pacific whiting and petrale sole IFQ allocations are both substantially reduced in 2025 compared to 2024. Yellowtail rockfish north is tracking lower in 2025 despite a 12 percent increase in the yellowtail rockfish north IFQ allocation from 2024 to 2025. However, canary rockfish do not appear to be a constraint to yellowtail rockfish IFQ attainment, because in the midwater rockfish sector where yellowtail rockfish is targeted, the amount of canary rockfish landed per yellowtail rockfish by trip (defined as a vessel-day landing) has generally been similar or even lower in 2025 compared to previous years. The rate of canary rockfish to yellowtail rockfish landings in the midwater rockfish sector was particularly high in 2022 when 75 percent of trips landed up to roughly 15 lbs. of canary rockfish for every 100 lbs. of yellowtail rockfish but has decreased steadily since then. In 2025, 75 percent of trips landed no more than roughly one-quarter of a pound of canary rockfish per 100 lbs. of yellowtail rockfish. While the two species overlap in range, yellowtail rockfish generally occur in deeper waters than canary rockfish, so it is possible for vessels to avoid canary rockfish while targeting yellowtail rockfish by fishing further offshore. Attainments of the canary rockfish AVLs in the IFQ fishery also remain low across nearly all vessels (i.e., 1 percent or less).

Table 3. Canary rockfish IFQ quota pound prices and number of trades through May 19, 2021-2025. Source:
National Oceanic and Atmospheric Administration (NOAA) IFQ Public Quota Pound Price Dashboard &
Erin Steiner (NOAA, Northwest Fisheries Science Center)

	2021	2022	2023	2024	2025
QP Price	\$0.12	\$0.10	\$0.14	\$0.15	\$0.28
Trades thru May 19	6	7	10	8	3

In light of the 2023 canary stock assessment, the Groundfish Advisory Subpanel (GAP) requested the canary rockfish trip limits for both LEFG and OA fisheries, north and south of 40° 10' N. lat. be reduced by approximately 25 percent (Agenda Item E.3.a, Supplemental GMT Report 1, November 2023). However, 2025 commercial non-trawl landings to date are higher than they were this time last year, suggesting an increase in participants taking advantage of mid-water fishing opportunities on the shelf. The GMT expects commercial non-trawl mortality to increase over the summer months as weather conditions allow for more time on the water. However, the increased landings in this sector are unlikely to pose a threat to the canary rockfish commercial non-trawl share of 50.7 mt.

While the Tribal canary rockfish set-aside of 50 mt is projected to be fully attained by the end of the year, the Tribal fisheries that contribute the majority of mortality (*i.e.*, whiting and midwater rockfish) have not experienced extensive participation to date. Low participation at this point in the year is to be expected, as Tribal fisheries typically occur in the second half of the year. In the Tribal fisheries which have occurred this year, canary rockfish mortality has not substantially diverged from trends typically seen between January and May since 2019.

Attainment of the canary rockfish FHG (i.e., the ACL after off-the-top deductions) by commercial sectors only, began tracking higher this year in the first few weeks but has since slowed compared to prior years (Figure 1). The higher attainment is not in response to an increase of harvested canary rockfish, as total landings are down. Rather, the attainment reflects the lower canary rockfish ACL. Large canary rockfish landings occurred in mid-to-late April off of Oregon, as previously noted, indicated by the red dashed lines in Figure 1. Yet, even the largest five canary rockfish landings in 2025 to date are generally lower than the largest five canary rockfish landings generally quickens compared to before May 18 as fishery activity increases in the summer months, but overall landings show a steady increase throughout the year with some exceptions when lightning strikes occur. In 2024, attainment of the canary rockfish FHG increased rapidly by roughly 10 percent in the span of three weeks in late September/early October due to a handful of lightning strikes.



Figure 1. Cumulative non-tribal commercial attainment of the canary rockfish Fishery Harvest Guideline (HG), based on landings only through May 18 (i.e., week 20), aggregated by week. Red dashed lines indicate the top two weeks in 2025 with the largest canary rockfish landings.

As a proxy for catch per unit effort (CPUE) in the absence of inseason observer data, the GMT calculated the weekly aggregate of canary rockfish landings per trip by dividing the total amount of canary rockfish landed per week in all non-tribal directed commercial groundfish sectors by the number of trips that week for only trips that landed some amount of canary rockfish (Figure 2). The GMT chose to exclude trips that do not encounter canary rockfish, which may result from their gear type, areas fished, target species, etc. The two at-sea Pacific whiting sectors are excluded from this analysis, but only one of the sectors has been active as of May 23, and canary rockfish landings per trip were lower than at least one previous year, with the exception of weeks 2 and 16. It is worth noting that canary rockfish is targeted by some groundfish vessels and considered bycatch by other groundfish vessels, depending on their operation, so the amount of canary rockfish landed per trip can vary widely across vessels based on their targeting practice.



Figure 2.Weekly canary rockfish landings (lbs.) per trip across all positive canary rockfish trips in directed groundfish sectors (except at-sea) through May 18 (i.e., week 20), where "trip" is defined as a vessel-day landing, 2021-2025.

In conclusion, the GMT's investigation does not appear to indicate any unforeseen canary rockfish trends that are beyond what the team anticipated when establishing the 2025-26 harvest specifications and management measures. However, it is possible that IFQ vessels are actively avoiding canary rockfish in 2025 more so than prior years, resulting in low landings rates and harvest limit attainments to date that do not reflect the amount of canary rockfish that would otherwise be caught. When conducting the 2025-26 management measures analysis, the GMT anticipated that a reduction in the canary rockfish IFQ allocation would result in higher demand and fewer trades of canary rockfish quota pounds, making it harder for vessels to cover any high bycatch events. The GMT also anticipated that canary rockfish landings would increase in the LEFG and OA sectors due to anticipated shifts in effort in response to restrictions off of California to protect quillback rockfish as well as access to areas previously closed to directed groundfish fishing. However, the GMT does not anticipate the trawl or commercial non-trawl harvest limits will be exceeded.

Petrale Sole

The petrale sole coastwide ACL decreased from 3,285 mt in 2024, to 2,354 mt in 2025 (*i.e.*, a 28 percent decrease). To demonstrate the impact of this reduction relative to recent catches, the total mortality of petrale sole in 2024 is estimated at 2,879 mt, or 122 percent of the 2025 coastwide ACL, noting that this 2024 estimate does not yet include final discard mortality estimates but rather uses a recent three-year average of discard mortality. Unlike canary rockfish, the reduced ACL did not require the implementation of new restrictions in 2025, since the majority of mortality comes from the IFQ sector. The reduction in quotas has constrained IFQ participants and caused vessels to change their fishing strategies, which was anticipated in the GMT's analysis for 2025-26 management measures. With substantially higher sablefish ACLs in 2025, bottom trawl vessels appear to be prioritizing sablefish, as sablefish landings in that sector are tracking higher to-date than previous years. While fishery constraints were anticipated for the IFO (non-whiting) sector, these constraints may also limit the attainment of co-occurring species as operations may need to reduce fishing intensity on petrale sole. Even with shifts in targeting strategies, the 2025 petrale sole ACL is at a higher risk of being exceeded with the lower harvest levels compared to prior years, given that this is a highly attained target species even under relatively higher harvest limits. As of May 19, 41 percent of the 2025 FHG and 49 percent of the ACL have been attained (Table 4).

Table 4. Year-to-date estimated total mortality in metric tons (mt) with year-end harvest limits or set-asides (mt) and percent attainment for petrale sole as of May 19, 2025. Estimated mortality in all non-treaty commercial sectors are based on landings through May 19 combined with the recent three-year (2021-2023) average discard mortality estimate prorated by day of year, except at-sea sectors and recreational fisheries which record all catches (retained and discarded) inseason.

Sector	Estimated Mortality (mt)	Harvest Limits or Set-asides (mt)	Percent Attainment	
Trawl	841.3	2,005.5	42%	
At-Sea CP	0.0	5.0	00/	
At-Sea MS	-	5.0	0%	
IFQ (shoreside whiting)	*	2 000 5	42%	
IFQ (non-whiting)	841.3	2,000.5		
Non-Trawl	1.6	30.0	5%	
Commercial	0.3	20.0	10/	
Recreational	1.3	30.0	1%	
Fishery Harvest Guideline	842.9	2,035.5	41%	
Incidental/Miscellaneous a/	28.5	28.5	100%	
Treaty a/	290	290	100%	
Total (Harvest Limit = ACL)	1,161.4	2,354.0	49%	

*Confidential and not included in total

a/ Full set-aside attainment is projected.

The vast majority of petrale sole is landed in the IFQ bottom trawl sector where it is an important target species (Table 5). In the bottom trawl sector, 2025 landings are tracking lower through May

18 compared to previous years, with the exception of 2020 when landings were as low as 729 mt, likely due to COVID-19 pandemic related impacts. Landings in all other sectors remain minimal, although landings in the LEFG (i.e., Limited Entry DTL) sector is tracking higher in 2025 relative to prior years. Landings to date also increased in 2025 in the IFQ shoreside whiting sector despite a slow start in that fishery, but the value cannot be shown due to confidentiality.

Year	IFQ Bottom Trawl	IFQ Midwater Rockfish	IFQ Whiting	Primary Sablefish	Limited Entry DTL	OA Fixed Gear	Nearshore
2018	984.6	0.0	*	0.0	0.0	0.1	-
2019	1,027.2	0.0	-	0.0	0.1	0.1	*
2020	729.0	0.0	-	-	0.1	0.5	0.0
2021	980.7	0.1	-	0.0	0.0	0.2	0.0
2022	1,214.0	4.7	-	*	0.0	0.3	0.0
2023	1,124.1	*	*	0.0	0.1	0.1	0.0
2024	944.7	*	-	0.3	0.0	0.4	*
2025	835.3	0.0	*	0.0	0.2	0.1	*

Table 5.Petrale sole landings (mt) by directed commercial groundfish sector through May 18 for all years, 2018-2025.

*confidential

Table 6 below shows that petrale sole quota pound prices in the IFQ fishery have also increased, similar to canary rockfish, and are generally on the higher end even in years with higher allocations. Unlike canary rockfish, the GMT was unable to obtain petrale sole quota pound trading information only through May 19 for prior years as of the time of writing this report, but prices generally do not vary greatly within a single year. The high prices under lower allocations of a highly attained species mean that it will likely be challenging for IFQ vessels to maintain normal petrale-targeting fishing operations for the entire year, and more bottom trawl vessels are likely to switch targeting practices or even to other non-groundfish fisheries as the year progresses. However, similar to canary rockfish, this impact was anticipated under the reduced 2025 IFQ allocation.

Table 6.Petrale sole IFQ quota pound prices and number of trades, 2021-2025. YTD = thru May 19 for 202	25
and year-end for 2021-2024. Prices are nominal, i.e., not adjusted for inflation. Source: NOAA IFQ Public	
<u>Ouota Pound Price Dashboard</u>	

	2021	2022	2023	2024	2025
QP Price	\$0.24	\$0.24	\$0.29	\$0.30	\$0.48
Trades YTD	37	67	52	52	19

The Tribal set-aside for petrale sole of 290 mt is projected to be fully attained by the end of the year, with the majority (>90 percent) of the set-aside projected to be attained by the end of September. The remainder of the Tribal set-aside is held in reserve from targeted petrale sole fisheries to accommodate mortality in other Tribal fisheries, in the interest of not exceeding the set-aside for this highly attained species. To date, catches of petrale sole in Tribal fisheries have

been unusually high for the second year in a row, with roughly one-third of the set-aside attained since targeted fisheries began in April.

Attainment of the petrale sole FHG by commercial sectors only has been steadily tracking higher in 2025 relative to previous years (Figure 3), but that is a reflection of the lower ACL, as overall landings have been tracking lower. The largest volume of weekly petrale sole landings in 2025 occurred within the first two weeks of the year, as indicated by the red dashed lines in Figure 3. Those large volumes, relative to individual vessels' access to quota, likely raised concerns in the fishery and possibly drove the fleet to slow their catch rates of petrale sole so as not to prematurely run out of quota. After May 19, the pace of cumulative FHG attainment tends to remain steady but increases slightly around September to October, presumably as vessels try to finish out the year with full attainment of their available quota. However, this trend may change in 2025 as vessels fish their quota conservatively and/or are unable to access additional quota on the market.



Figure 3.Cumulative non-tribal commercial attainment of the petrale sole Fishery Harvest Guideline (HG), based on landings only through May 18 (i.e., week 20), aggregated by week. Red dashed lines indicate the top two weeks in 2025 with the largest petrale sole landings.

As with canary rockfish, the GMT looked at petrale sole landings per trip aggregated on a weekly basis as a proxy for CPUE (Figure 4), and as with canary rockfish, the two at-sea Pacific whiting sectors are excluded where zero petrale sole have been caught as of May 18, 2025. Three weeks in 2025 saw higher petrale sole landings per trip – weeks 1, 11, and 12 – compared to the previous four years. However, only week 11 saw a notably higher CPUE, roughly double that of the next highest year (2021). This does not constitute an unforeseen or abnormal trend, as there is generally

year-to-year variation of weekly CPUE, with some particularly high rates at the start of the year and generally leveling out around week 12 (i.e., mid-to-late March).



Figure 4. Weekly petrale sole landings (lbs.) per trip across all positive petrale sole trips in directed groundfish sectors (except at-sea) through May 18 (i.e., week 20), where "trip" is defined as a vessel-day landing, 2021-2025.

In conclusion, while petrale sole percent attainment is tracking higher than previous years, overall landings are down, and the rate of landings appears to be consistent with typical trends seen in other years. IFQ vessels may need to shift targeting practices under constraining petrale sole quota amounts, but this was anticipated when analyzing the 2025-26 harvest specifications and management measures.

Shortspine Thornyhead

The coastwide ACL for shortspine thornyhead in 2024 was 2,030 mt, and the coastwide ACL for 2025 is a total of 815 mt (*i.e.*, a 60 percent decrease). Similar to petrale sole, this will be a constraining species to primarily the commercial sectors, as this species is not harvested by recreational anglers. The reduction of the ACL for shortspine thornyhead, combined with the increased ACL for sablefish—a species commonly caught alongside thornyheads—led to the 2025-2026 new management measure to eliminate the management line at 34° 27′ N latitude. This action was intended to establish a single coastwide ACL, increasing flexibility and providing relief to sectors and areas where projected mortality of shortspine thornyhead was expected to exceed harvest limits. Although the new management measure is providing some relief, the lower harvest limits are still likely to impact most commercial sectors. Table 3 below shows how each fishery is tracking compared to their specified harvest limits and set-asides. 18 percent of the FHG and 26 percent of the ACL has been attained as of May 19, 2025.

Table 7. Year-to-date estimated total mortality in metric tons (mt) with year-end harvest limits or set-asides (mt) and percent attainment for shortspine thornyhead as of May 19, 2025. Estimated mortality in all non-treaty commercial sectors are based on landings through May 19 combined with the recent three-year (2021-2023) average discard mortality estimate prorated by day of year, except at-sea sectors which record all catches (retained and discarded) inseason.

Sector	Estimated Mortality (mt)	Harvest Limits or Set-asides (mt)	Percent Attainment	
Trawl	97.7	475.7	21%	
At-Sea CP	0.1	70.0	0.10/	
At-Sea MS	-	/0.0	0.170	
IFQ (shoreside whiting)	0.4	405.7	2494	
IFQ (non-whiting)	97.3	403.7	24%	
Non-Trawl	39.2	267.6	15%	
North of 34° 27′ N. lat. (ACT)	16.1	67.0	24%	
Commercial north	16.1	NIA	ΝA	
Recreational north	0.0	INA	INA	
South of 34° 27' N. lat.	23.1	200.6	12%	
Commercial south	23.1	NIA	NIA	
Recreational south	0.0	INA	INA	
Fishery Harvest Guideline	137.0	743.3	18%	
Incidental/Miscellaneous a/	22	22	100%	
Treaty a/	50	50	100%	
Total (Harvest Limit = ACL)	209.0	815.3	26%	

a/ Full set-aside attainment is projected.

Shortspine thornyhead landings are tracking notably higher through May 18 in the IFQ bottom trawl, primary sablefish, limited entry fixed gear, and OA sectors compared to prior years (Table 8). As mentioned above the IFQ shoreside whiting sector has had a slow start in 2025, so it is difficult to compare that sector's 2025 trend to prior years. Similarly, the primary sablefish fishery has also had a slow start to the season this year but has landed more shortspine thornyhead so far this year than most prior years. The GMT anticipates increased participation in the primary sablefish fishery later this year, as sablefish allocations are much higher and sablefish prices appear to be increasing. Shortspine thornyhead is a common co-occurring species with sablefish in that sector, which means impacts to shortspine thornyhead may be higher this year than in the past. The two at-sea Pacific whiting sectors are not shown in Table 8, because prior to 2023, the Pacific whiting season began May 15 as opposed to the current start date of May 1, and in 2025, only one sector has been active as of May 23 with minimal catch of shortspine thornyhead (0.1 mt).

Shortspine thornyhead are targeted by some sectors and considered incidental catch necessary to access target species in other sectors. Off California, shortspine thornyhead are preliminary targeted in the non-trawl commercial sectors as they have a much higher ex-vessel revenue compared to other groundfish species, nearing \$15 per pound. The increased desire for this live fish market has helped fishery participants sell sablefish and other slope species when the markets

are down. This emerging market, as well as the rebounding sablefish market, is contributing to the increased landings of shortspine thornyhead off California. Although not primarily targeted in the coastwide trawl sectors, past public comment from industry, along with catch data, indicate that shortspine thornyhead is challenging to avoid in the trawl fisheries while targeting other high-value species like sablefish, Pacific whiting, and Dover sole. Unlike canary rockfish, shortspine thornyhead are typically caught in chronic amounts throughout the year and are not known to inhabit avoidable "hot spots," but they can generally be avoided by fishing higher off of the seafloor. Table 3 below shows how each fishery is tracking compared to their specified harvest limits and set-asides.

The Tribal shortspine thornyhead set-aside of 50 mt is projected to be fully attained by the end of the year. Of those Tribal fisheries which primarily encounter shortspine thornyhead (*e.g.*, bottom trawl and longline), the majority of effort is anticipated to occur between June and December of 2025. In the Tribal fisheries which have occurred to-date, mortality has not substantially diverged from trends typically seen between January and May since 2019.

Table 8. Shortspine thornyhead landings (mt) by directed commercial groundfish sector through May 18 for all years, 2018-2025. The IFQ midwater rockfish sector is not shown in the table, because all but one year in the time series is confidential and landings are minimal.

Year	IFQ Bottom Trawl	IFQ Whiting	Primary Sablefish	Limited Entry DTL	OA Fixed Gear	Nearshore
2018	208.9	-	6.6	55.3	0.6	0.6
2019	187.0	-	5.0	44.2	0.4	*
2020	132.8	*	2.8	31.6	0.2	*
2021	139.4	*	5.1	24.5	0.2	0.2
2022	163.7	-	2.2	19.7	1.3	0.1
2023	64.8	0.0	2.7	15.8	0.3	0.2
2024	68.5	0.6	3.7	18.4	0.4	0.1
2025	88.2	0.3	5.1	30.9	1.3	-

*confidential

Given that shortspine thornyhead is a co-occurring species with sablefish, and sablefish allocations are much higher in 2025, the GMT further analyzed the landings through May 18 by sector for trips that did or did not appear to target sablefish to some extent. If shortspine thornyhead were simply being encountered on a more frequent basis or in higher volumes, regardless of targeting strategy, landings in both sablefish targeting and non-sablefish targeting groups would be expected to increase in 2025. However, if shortspine thornyhead landings are increasing as a direct result of increased sablefish landings, only the sablefish-targeting sector would be expected to see increased landings of shortspine thornyhead. Particularly in the bottom trawl sector, vessels often target multiple species on the same trip, so the GMT chose a precautionary 25 percent threshold to determine whether a trip was or was not targeting sablefish. In other words, vessel-day trips with >25 percent of sablefish in the landing were categorized as a sablefish targeting trip, and those with <25 percent sablefish were categorized as a trip not targeting sablefish to any extent.

Tables 9 and 10 below indicate that increased shortspine thornyhead landings to-date in 2025 may only reflect an increase in sablefish landings under higher sablefish allocations. On trips that were classified as targeting sablefish, shortspine thornyhead landings increased substantially in all commercial sectors except the nearshore sector where landings are typically minimal (Table 9). On IFQ bottom trawl trips targeting species other than sablefish, nearly half as many shortspine thornyhead have been landed through May 18 in 2025, compared to the landings through May 18 of the last two years, and the 2025 landings are even lower when compared to earlier years (Table 10). While non-sablefish targeting trips in the LEFG (i.e., Limited Entry DTL) sector landed more shortspine thornyhead through May 18 compared to the last two years, the 2025 value is still lower than four other years since 2018 and may be a reflection of LEFG vessels off of California shifting effort towards more slope species and the increased price for live shortspine thornyhead. Some sectors shown in Tables 8 or 9 are not shown in Table 10 because they either only target sablefish (e.g., primary sablefish) or they land so few shortspine thornyhead that the data is confidential (e.g., IFQ midwater rockfish).

Year	IFQ Bottom Trawl	Primary Sablefish	Limited Entry DTL	OA Fixed Gear	Nearshore
2018	14.3	6.6	43.7	0.5	0.6
2019	14.3	5.0	40.2	0.4	*
2020	7.6	2.8	24.3	0.2	*
2021	18.9	5.0	17.5	0.2	0.2
2022	47.4	2.2	13.3	1.2	*
2023	9.0	2.7	13.3	0.3	0.2
2024	10.1	3.7	14.9	0.4	-
2025	53.1	5.1	24.3	1.2	-

Table 9.Shortspine thornyhead landings (mt) through May 18 by sector on vessel-day trips where >25 percent of the landing is sablefish.

*confidential

Table 10. Shortspine thornyhead landings (mt) through May 18 by sector on vessel-day trips where <25 percent of the landing is sablefish. The primary sablefish, IFQ midwater rockfish, OA fixed gear, and nearshore sectors were removed, because all (or all but one) of the years are confidential.

Year	IFQ Bottom Trawl	Limited Entry DTL	IFQ Whiting
2018	194.6	10.8	-
2019	172.4	3.4	-
2020	125.3	6.7	-
2021	120.4	5.3	*
2022	116.3	4.7	-
2023	55.8	0.5	0.0
2024	58.4	3.1	0.6
2025	35.1	3.9	0.3

*confidential

Unlike petrale sole and canary rockfish, Table 11 below shows that shortspine thornyhead quota pound prices in the IFQ fishery have remained constant although there is not enough data to capture prices this year. Unlike canary rockfish, the GMT was unable to obtain petrale sole quota pound trading information only through May 19 for prior years as of the time of writing this report, but prices generally do not vary greatly within a single year. The lack of trades in 2025 may suggest that IFQ participants are holding onto their quota to ensure access to other target species throughout the remainder of the year, especially with high sablefish quotas in 2025. However, compared to petrale sole, the number of trades have generally been low in past years. As mentioned above, this impact was anticipated under the reduced 2025 IFQ allocation.

 Table 11. Shortspine thornyhead IFQ quota pound prices and number of trades, 2021-2025. YTD = thru May 19 for 2025 and year-end for 2021-2024. Information prior to 2025 is for shortspine thornyhead north of 34° 27' N. lat. only. Prices are nominal, i.e., not adjusted for inflation. Source: NOAA IFQ Public Quota Pound Price Dashboard

	2021	2022	2023	2024	2025
QP Price	\$0.02	\$0.03	Not enough	\$0.02	Not enough
Trades YTD	7	2	data	6	data

Attainment of the canary rockfish FHG (i.e., the ACL after off-the-top deductions) by commercial sectors only began tracking higher than in years past as indicated by the red dashed lines in Figure 5 and has continued to remain higher but increasing at a slower rate. The higher attainment is twofold, both in response to an increase of harvested shortspine thornyhead coupled with the lower ACL.



Figure 5. Cumulative non-tribal commercial attainment of the shortspine thornyhead Fishery Harvest Guideline (HG), based on landings only through May 18 (i.e., week 20), aggregated by week. For all years prior to 2025, the HGs north and south of 34° 27′ N. lat. were combined for a proxy coastwide HG to compare to 2025. Red dashed lines indicate the top two weeks in 2025 with the largest shortspine thornyhead landings.

As with canary rockfish and petrale sole, the GMT looked at shortspine thornyhead landings per trip aggregated on a weekly basis as a proxy for CPUE (Figure 6), and again, the two at-sea Pacific whiting sectors are excluded. Four weeks in 2025 saw higher shortspine thornyhead landings per trip compared to the previous four years. For example, roughly 28,000 lbs. of shortspine thornyhead were landed in week three of 2025 across 33 trips for an aggregate CPUE of 850 lbs. per trip, compared to roughly 13,000 lbs. across 24 trips in that same week of 2021, the next highest year. However, this trend at the start of the year reverses around week 6, after which CPUE is consistently lower than at least one of the previous four years through May 18th. The reduction in CPUE could be a result of IFQ participants actively avoiding shortspine thornyhead to ensure access to other quota of other target stocks though the remainder of the year, whereas the non-trawl commercial sectors see CPUE increase at the beginning of every two months as their trip limits are reset bimonthly.



Figure 6. Weekly shortspine thornyhead landings (lbs.) per trip across all positive shortspine thornyhead trips in directed groundfish sectors (except at-sea) through May 18 (i.e., week 20), where "trip" is defined as a vessel-day landing, 2021-2025.

In conclusion, shortspine thornyhead landings and percent attainment is tracking higher than previous years. As mentioned above, during the 2025-26 harvest specifications and management measures process, the GMT anticipated this increase in shortspine thornyhead attainment and recommended removing the management line at 34° 27' N lat. to provide coastwide flexibility. However, the combination of lower shortspine thornyhead ACL paired with higher limits for co-occurring target species may still be constraining fishery participants.

Recreational Fisheries

Broadly, recreational anglers are also feeling the constraints of the reduced ACLs, specifically the reduced bag limits on canary rockfish for Washington and Oregon anglers and loss of access to depths for California anglers. However, it is generally still too early to make predictions for the

remainder of the year. Recreational fishing seasons began between January 1 and April 1, depending on the state, species harvested, and region. Additionally, ocean conditions and bar restrictions further reduced the days recreational anglers have access to the fishing grounds, further limiting the number of anglers during the earlier months. There is no additional known risk of exceeding quotas for recreational fisheries at this point, as fisheries are only beginning.

During the development of 2025-26 harvest specifications, the GMT identified a recent trend of increasing petrale sole mortality in the recreational fisheries. 2025 recreational petrale sole landings off Oregon and Washington are similar to previous years and up slightly off California as compared to Jan-Mar 2024 (1.2 mt in 2025 compared to 0.2 mt in 2024). However, most petrale sole landings occur in the summer months. The GMT expects 2025 recreational petrale landings to be higher than their historical averages and closer to catch in 2023 and 2024.

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