GROUNDFISH MANAGEMENT TEAM REPORT ON INSEASON ADJUSTMENTS INCLUDING WHITING YIELD SET-ASIDES FOR 2021 – FINAL ACTION

The Groundfish Management Team (GMT) reviewed the briefing book materials, considered the progress of the groundfish fisheries to-date, received an overview from Mr. Todd Phillips (Pacific Fishery Management Council [Council]) staff, and offers the following updates and recommendations.

Action items for 2020

No inseason action items are proposed for the remainder of 2020.

Action items for 2021

There are two sections of action items for 2021. The first section pertains to Pacific whiting set-asides and allocations. The second section pertains to trip limit requests. Potential economic impacts were estimated using GMT projection models and the IO-PAC multipliers. Other numbers were extracted from PacFIN and NORPAC databases.

Section 1: Set-asides and allocations for 2021

Pacific whiting set-aside

The objective of this action is to set aside the amount of Pacific whiting needed to account for incidental catch by research activities and the pink shrimp fishery. This amount is set on an annual basis and will be deducted from the US total allowable catch (TAC) to establish the 2021 Pacific whiting fishery allocations. While the recent five-year maximum mortality of Pacific whiting from research removals and the pink shrimp fishery is 1,175 mt, the recent three-year average mortality has declined from 942 mt in 2014-2016 to 216 mt in 2017-2019 (Agenda Item F.13.a, REVISED Supplemental GMT Report 1, November 2017). Over 120,000 mt of the US Pacific whiting TAC remained uncaught in 2019, so the GMT expects little to no risk of exceeding the TAC in 2021. To accommodate the recent three-year average mortality, with some added buffer for any additional research projects that may arise, **the GMT recommends setting the Pacific whiting set-aside for research activities and the pink shrimp fishery at the Groundfish Advisory Subpanel (GAP) recommended 750 mt for 2021**.

Section 2: Trip limit requests for 2021

Each biennium, the Council sets pre-season trip limits to reach, but not exceed, the landings target for the limited entry (LEN) and open access (OAN) fixed gear fisheries north of 36° N. lat. These trip limits are frequently adjusted inseason because price and actual participation can result in attainments varying considerably from projections. The typical approach, as requested by the GAP, is to set conservative trip limits at the beginning of the year and increase them inseason if catch amounts are tracking low compared to annual limits. In this section, the status quo, or No Action, is characterized as the Council recommendations for 2021-22, as published in the proposed rule on October 2, 2020 (85 FR 62492).

Sablefish daily-trip-limit

North of 36° N. lat.

Inseason action during the September 2020 meeting included increasing both the LEN and OAN daily-trip-limit (DTL) trip limits as a means to address continued low sablefish prices as well as COVID-19 impacts on the fishery. The GAP requested the current OAN trip limits be rolled over into 2021 (Table 1, Option 1) as opposed to the trip limits that are included in the 2021-22 Biennial Harvest Specifications and Management Measures regulatory package (Table 1, No Action). No requests were received for LEN, nor did the GMT see the need for an adjustment based on the projected 79-110 percent attainment of the landed catch share (Table 2). The GMT provides the LEN limits and projections merely for context, as there is no action needed.

Projections for OAN were from modeling the last 10+ years (2010-2020) but weighting 2018 and 2019 as the most influential years. Weighting 2018 and 2019 more heavily does project a range of values that may be artificially high for 2021 if the market and COVID-19 restrictions remain similar to 2020. However, if the market recovers and the pandemic subsides, landings may return to levels more similar to previous years.

Table 1. No Action and Option 1 trip limits for the LE and OA sablefish DTL fisheries north of 36° N. lat.

		Trip Limit (lbs.) by 2-month period					
Period		**1**	**2**	**3**	**4**	**5**	**6**
Option	LEN No Action (Proposed rule/2021-22)	1,700 lbs./week, not to exceed 5,100 lbs./2 months					
	OAN No Action (Proposed rule/2021-22)	300 lbs./day, or 1 landing per week of up to 1,400 lbs., not to exceed 2,800 lbs./2 months					
	OAN 1 (2020 roll-over)	600 lbs./day, or 1 landing per week of up to 2,000 lbs., not to exceed 4,000 lbs./2 months					

Table 2. No Action and Option 1 projected landings for the LE and OA, sablefish DTL fisheries north of 36° N. lat.

Option	Projected Landings (rd. wt. mt)	Landed Catch Target (mt)	Percent Attainment
LEN No Action (Proposed rule/2021-22)	265 - 369	336	79% - 110%
OAN No Action (Proposed rule/2021-22)	332 - 406	553	60% - 73%
OAN 1 (2020 roll-over)	421 - 514	553	76% - 93%

Although the projections for OAN may be high, the GMT recommends Option 1 trip limits (600 lbs. / day, or 1 landing per week of up to 2,000 lbs., not to exceed 4,000 lbs) for OAN in 2021, as these limits could provide for more opportunity and stability to the OAN fleet at the beginning of the year when the Dungeness crab fishery is likely to be delayed or shortened. The projected attainment of the landings target for Option 1 is 76-93 percent for OA north of 36° N. lat.

South of 36° N. lat.

The proposed 2021 trip limits for the open access (OAS) fishery south of 36° N. lat. are 1,600 lbs. per week and not to exceed 4,800 lbs. per 2 months. The daily limit is proposed to be removed for south of 36° N. lat., per the Council's recommendation for the 2021-22 management measures. To provide additional opportunity for individuals in this low attainment sector, which typically lands less than 10 percent of the landing target, industry members, by way of the GAP, requested increases for both the weekly and bi-monthly limits to 2,000 lbs. and 6,000 lbs., respectively (Table 3). Given that this request would set both the LEN and OAS weekly limits to 2,000 lbs., the GMT provides additional options for the LES fishery in Table 3.

Due to COVID-19 restrictions and associated impacts to fishery performance, the projection model for LES used the last 10+ years (2010-2020) to capture the anticipated price per pound and pound per vessel landings instead of relying on 2019 and 2020 trends. Projections for OAS are based on 2019 and 2020, with 2019 being the most recent high projection (and absent any COVID-19 impacts) and 2020 being the low projection. Projections for both LES and OAS are in Table 4. The GMT notes that the data used to model the OAS limits are years with the 300 lbs. daily limit included in the trip limit. Removing the daily limit in the model, yet using data that includes the daily limit, makes it difficult to truly capture the amount of effort that may result in 2021. Despite this uncertainty with the model projections, the GMT believes the 2021 OAS landings would remain well below the catch target of 435 mt for this typically low attainment sector.

Table 3. No Action and Option 1 trip limits for the LE and OA sablefish DTL fisheries south of 36° N. lat.

		Trip Limit (lbs.) by 2-month period					
	Period	**1**	**2**	**3**	**4**	**5**	**6**
Option	LES No Action (Proposed rule/2021-22)	2,000 lbs. / week					
	OAS No Action (Proposed rule/2021-22)	1,600 lbs. per week, not to exceed 4,800 lbs. / 2 months					
	LES 1	2,500 lbs. / week					
	OAS 1	2,000 lbs. per week, not to exceed 6,000 lbs. / 2 months					

Table 4. No Action and Option 1 projected landings for the LE and OA sablefish DTL fisheries south of 36° N. lat.

Option	Projected Landings (rd. wt. mt)	Landed Catch Target (mt) a/	Percent Attainment
LES No Action (Proposed rule/2021-22)	351 - 429	601	58% - 71%
OAS No Action (Proposed rule/2021-22)	7.5 - 13.2	435	2% - 3%
LES 1	480 - 586	601	80% - 98%
OAS 1	8.8 - 14.7	435	2% - 3%

Vessels in the OA sector rarely catch the bimonthly limit, and the ability of this action to stimulate extra activity is unclear, so the economic benefit is difficult to quantify. However, raising the bimonthly limit could increase the ability of individual harvesters to access more fish and benefit both fishermen and communities. Given the low workload and potential benefits, **the GMT**

therefore recommends the Council adopt the Option 1 trip limits for the LES and OAS fishery south of 36° N. lat. (Table 3).

LEFG and OA lingcod trip limits south of 40° 10′ N. lat.

Inseason action was taken at the April 2020 meeting to increase commercial limits for lingcod south of 40°10′ N. lat. to provide more opportunity to the fixed gear fleet (Option 1 in Table 5). At the June 2020 meeting, the Council opted to adjust the trawl/non-trawl allocation for lingcod south of 40°10′ N. lat. for the 2021-22 biennium, which increased the non-trawl allocation by 5 percent. This increase would provide stability in the non-trawl sector as well as some additional opportunity to the commercial fishery within the non-trawl sector, as trip limits were reduced at the start of 2019 in response to the decrease in the Annual Catch Limit (ACL).

The lingcod south of 40° 10′ N. lat. trip limits included in the Proposed Rule for the 2021-22 Biennial Specifications and Management Measures are 1,200 lbs. per 2 months for the limited entry fixed gear (LEFG) fishery and 500 lbs. per month for OA (No Action in Table 5). Industry has requested to increase the OA monthly limits to 800 lbs. for the start of 2021. Typically, LEFG bimonthly limits for lingcod are slightly more than double the monthly limit for OA. Therefore, the GMT provides options to increase the LEFG trip limit along with the OA trip limit: 1,800 lbs. per 2 months for LEFG and 800 lbs. per month for OA (Option 2 in Table 5).

The GMT projects the increase in landings for Option 1 to be 37.6 mt, of which the associated projected economic benefits can range from approximately $8,200 - $734,000, averaging $253,800, in ex-vessel revenue paid to fishermen, and $15,000 - $1.4 million in income to West Coast communities. For Option 2, the increase in landings would be 51.3 mt, resulting in projected economic benefits ranging from approximately $11,300 - $1,019,000, averaging $346,500, in ex-vessel revenue paid to fishermen and $22,000 - $1.9 million in income to West Coast communities.

Table 5. No Action and proposed options for LEFG and OA trip limits for lingcod south of 40° 10′ N. lat.

		Trip Limit (lbs.) by 2-month period					
Period		**1**	**2**	**3**	**4**	**5**	**6**
Option	LEFG No Action (Proposed rule/2021-22)	1,200 lbs./2 months					
	OA No Action (Proposed rule/2021-22)	500 lbs. / month					
	LE 1 (2020 roll-over)	1,600 lbs./2 months					
	OA 1 (2020 roll-over)	700 lbs. / month					
	LE 2	1,800 lbs./2 months					
	OA 2	800 lbs. / month					

Table 6. No Action and proposed 2021 LEFG and OA trip limit projections for lingcod south of 40° 10′ N. lat.

Option	Commercial projected mortality (mt)	Non-trawl projected mortality (mt)*	Non-trawl alloc. (mt)
LEFG No Action (Proposed rule/2021-22)	7.9	499.1	653.4
OA No Action (Proposed rule/2021-22)	71.7		
Total for Option (No Action)	***79.6***		
LEFG 1 (2020 roll-over)	10	517.6	
OA 1 (2020 roll-over)	88.7		
Total for Option 1 (2020)	***98.7***		
LEFG 2	11.2	558.2	
OA 2	101.2		
Total for Option 2	***112.4***		

*Includes a CA rec projection of 419.5 mt

The GMT recommends the Council adopt Option 1 for both LEFG and OA trip limits for lingcod south of 40° 10′ N. lat. where LEFG would be 1,600 lbs. / 2 months and OA would be 700 lbs. / month.

Yelloweye rockfish impacts from lingcod south of 40° 10′ N. lat. trip limits

For 2021, the non-nearshore and nearshore harvest guideline (HG) and annual catch target (ACT) were combined for yelloweye rockfish. The combined commercial yelloweye rockfish HG will be 7.8 mt and the ACT will be 6.2 mt. The GMT Nearshore Model estimates the California nearshore fishery yelloweye rockfish mortality projection for Option 1 to be 0.7 mt and for Option 2 to be 0.71 mt. Based on historical estimated mortality of yelloweye rockfish in the non-nearshore fishery, the GMT estimates the increases to the trip limits lingcod south of 40° 10′ N lat to be less than 0.5 mt. In total, the estimated impacts to yelloweye rockfish from adjusting the lingcod south of 40° 10′ N. lat. trip limits are 1.2 mt (Option 1) or 1.21 mt (Option 2). These options would change impacts from the commercial fishery within the non-trawl sector from 3.9 mt to 5.1 mt (or 82 percent of the ACT) for Option 1 or to 5.12 mt (or 83 percent of the ACT) for Option 2.

OA shortspine and longspine thornyhead south of 34° 27′ N. lat.

The GMT received a request from a fisherman south of 34° 27′ N lat. in September 2020 to increase the DTL for shortspine and longspine thornyhead to help increase flexibility while targeting sablefish. The GMT suggested that the request be moved to November 2020 inseason for 2021 implementation. Since the OA trip limit has not been modified since 1996, the GMT consulted with the GAP and the requestor to develop an increase for the OA fishery that would not negatively affect the LE fishery that targets shortspine thornyhead and sablefish.

The OA trip limit is for both shortspine and longspine thornyhead, while the LE limit is only for shortspine thornyhead. The proposed option for OA would increase the daily limit for both shortspine and longspine thornyhead from 50 lbs. per day to 100 lbs. per day--the bi-monthly limit will remain status quo at 1,000 lbs. (Table 7). Included in Table 7 is also the LES limits for context; however, there is no action needed.

Table 7. No Action and proposed trip limit options for LEFG shortspine thornyhead and OA shortspine and longspine thornyheads south of 34° 27′ N. lat.

		Trip Limit (lbs.) by 2-month period					
Period		**1**	**2**	**3**	**4**	**5**	**6**
Option	LEFG No Action (Proposed rule/2021-22)	3,000 lbs. / 2 months					
	OA No Action (Proposed rule/2021-22)	50 lbs./day, no more than 1,000 lbs./2 months					
	OA 1	100 lbs./day, no more than 1,000 lbs./2 months					

Table 8. Projections for No Action and proposed trip limits options for LEFG shortspine thornyhead and OA shortspine and longspine thornyheads south of 34° 27′ N. lat.

Option	Non-trawl projected mortality (mt)*	Shortspine Thornyhead Nontrawl alloc. (mt)	Longspine Thornyhead Fishery HG (mt)
LEFG No Action (Proposed rule/2021-22)	116.3	699.3	829.8
OA No Action (Proposed rule/2021-22)	3.0		
Total for Option 1 (NA)	***119.3***		
LEFG 1	116.3		
OA 1	3.0		
Total for Option 1	***119.3***		

*Not taken in CA recreational fishery

The model suggests that daily limit changes do not alter impacts, primarily due to the low number of vessels consistently making daily landings (Table 8). Although the projections do not show any difference between No Action and Option 1, the GMT does anticipate some increase in effort but any additional impacts would remain under the shortspine thornyhead non-trawl allocation and the longspine thornyhead Fishery Harvest Guideline.

Since Option 1 is not projected to change from No Action yet some increase is anticipated, it is difficult to project the associated economic benefit of the trip limit adjustment. In 2019, the weighted average price for shortspine thornyhead was $7.38 per pound, with unit prices ranging from $2 per pound to $10 per pound, price varies between landed live versus landed dead. Through early November 2020, the weighted average price for shortspine thornyhead is approximately $7 per pound, with unit prices ranging from $1 per pound to $10 per pound. For longspine thornyhead, the average weight price for 2019 and 2020 (through early Nov.) is $2.15, with unit prices ranging from $0.75 per pound to $9 per pound, price varies between landed live versus landed dead. If these unit prices continue into 2021, the ex-vessel revenues and income to West Coast communities will depend on the extent to which the ongoing pandemic continues to disrupt operations and markets in 2021.

Therefore, the GMT recommends the Council select OA Option 1 to adjust the trip limit to 100 lbs. per day and no more than 1,000 lbs. per 2 months.

Informational items for 2020

Shortbelly rockfish

Table 9 shows that 604 mt (20 percent) of the 3,000 mt shortbelly rockfish ACL has been taken as of November 16, 2020. (Source PacFIN).

Table 9. Estimated mortality of shortbelly rockfish by sector, as of November 16, 2020.

Sector	Estimated Mortality (mt)
At-Sea Hake Catcher Processor	3.0
At-Sea Hake Mothership	29.6
IFQ	184.6
Incidental/Miscellaneous	*
Shoreside Hake	378.5
Treaty	*
Total	**604.4**

* indicates confidential data

Coho salmon

The total estimated catch of coho salmon in the Pacific whiting fishery is currently less than 200 fish. The GMT believes there is a low risk of exceeding the 474 fish threshold in 2020.

At-sea bycatch of darkblotched rockfish

The Pacific whiting at-sea sectors have caught 103 percent (39.7 mt) of their 38.7-mt darkblotched rockfish bycatch set-aside, but only 32 percent of the darkblotched rockfish total ACL has been attained to date. Therefore, there is no risk of exceeding the ACL, and set-asides do not necessitate management action when exceeded.

Sablefish DTL Fishery

All four sectors of the sablefish DTL fishery are tracking low compared to previous years, and the GMT projects all four will remain within their 2020 landings targets, based on landings data through November 17, 2020.

Sablefish Tier Fishery N. of 36° N. lat.

The 2020 tier fishery is continuing past the normal October 31 season close date per the emergency rule (85 FR 68001, October 27, 2020). Incidental landings of Pacific halibut were also allowed to continue later than October 31, but closed on November 15, 2020. As of November 16, the primary sablefish tier fishery north of Point Chehalis, WA, landed 63,358 lbs. of Pacific halibut out of the 70,000-lb. allocation.

Under the emergency rule action item in September 2020, the GMT provided a table showing the number of vessels in the sablefish tier fishery achieving a given percent attainment of their tiers through September 14 from 2017 to 2020 (Agenda Item D.7.a., Supplemental GMT Report 1,

September 2020). Table 10 below shows the same metric through mid-September, October, and November 17 for 2020. Since September, 14 additional vessels have achieved at least 99 percent of their tiers, and an additional 18 vessels have achieved any amount of their tiers.

Table 10. Updated Sablefish Tier fishery data, Number of vessels achieving given percent attainment of tiers. Data are through November 17, 2020 and are derived from the PacFIN APEX Reporting System.

Percent Attainment (%)	Number of vessels		
	Thru mid Sept. (from D.7.a. Supp. GMT Rpt, Sept 2020)	Thru Oct	Thru Nov 17
99-100	18	30	32
90-98	2	5	5
80-89	2	1	1
70-79	3	3	3
60-69	1	3	2
50-59	3	2	2
<50	24	23	26
Grand Total	53	67	71

Ongoing Impacts of the COVID-19 Pandemic

The GMT reminds the Council, stakeholders, and members of the public that the Groundfish Scorecard is updated daily by PacFIN and shows attainment of groundfish ACLs. Of note, petrale sole, Pacific whiting, and sablefish (North of 36° N. lat.) are all at about 65 percent attainment of the ACL as of November 12, 2020. The Targeted Pacific Whiting Report on PacFIN provides a summary of the Pacific whiting sectors to date. As of November 12, 2020, attainment of Pacific whiting was 40 percent in the mothership sector, 76 percent in the catcher processor sector, and 85 percent in the shoreside sector. Public comment at our pre-Council webinar indicated that only having two processor platforms available for the fall fishery, compared to the typical 3-4, led to reduced catch and participation in the mothership sector. The EDC Landings Tracker indicates shoreside Pacific whiting prices have been about 2-3 cents per pound lower than the 2015-2019 median inflation-adjusted ex-vessel price (also see Figure 1 below). While pounds-landed tracks with or exceeds prior seasons in the shoreside sector, shoreside Pacific whiting catcher vessel revenues are lower than in previous years.

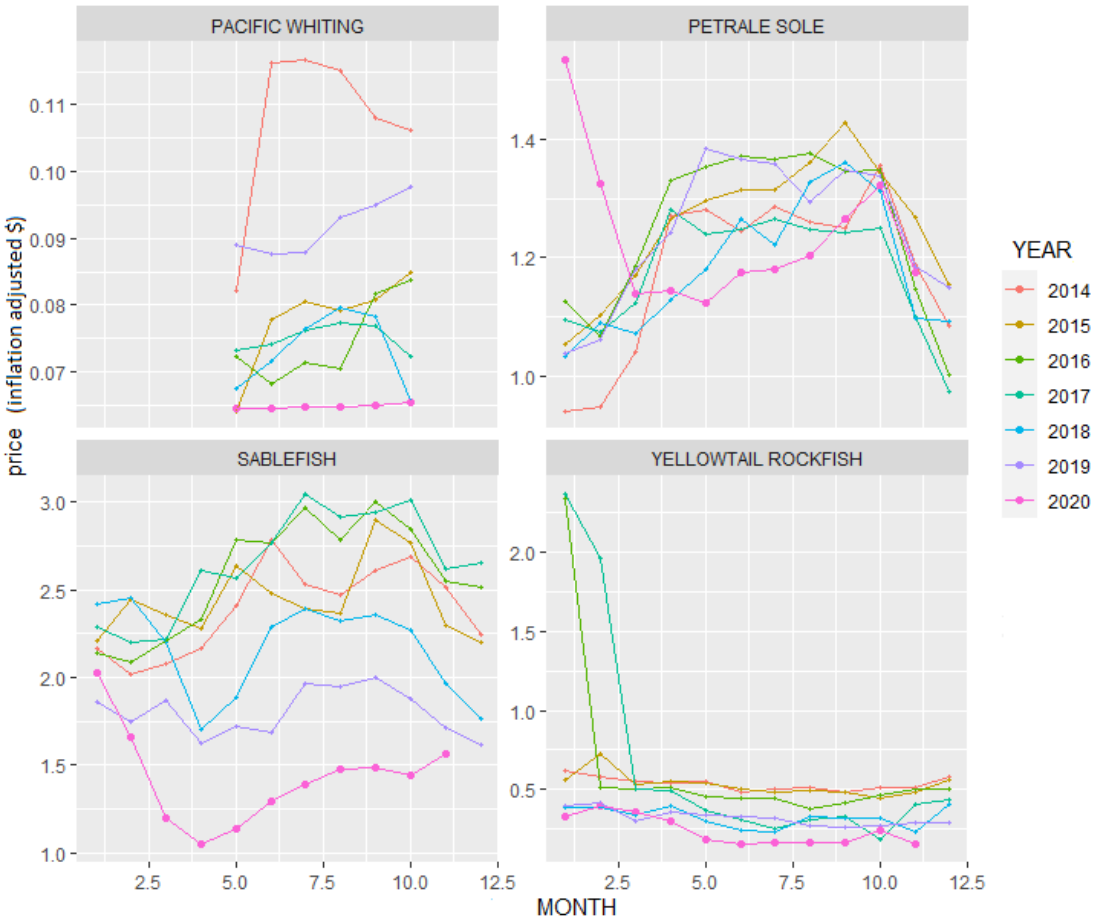

Figure 1. Inflation adjusted coastwide ex-vessel average price per pound by month for select groundfish species 2014-present (PacFIN data pulled 11/12/20).

For non-whiting groundfish (all gears and sectors), a decline in both participation and revenue seems generally to have preceded the global recognition of the COVID-19 pandemic, with atypically low participation and revenue in January 2020, possibly due in part to ongoing decline in sablefish prices, among other factors. Vessels generally have received lower prices in 2020 relative to recent years, as shown for four key species in Figure 1. Petrale sole prices appear to have rebounded somewhat. Sablefish prices have increased steadily since an extreme low at the beginning of the pandemic in March 2020, but remain well below those observed in the prior six years. The drop in prices has led to decreased total coastwide ex-vessel revenue for 2020, shown in Figure 2 below. Revenues started off slightly lower in January-February than those of the same time in prior years, and continued to lag behind prior-year revenues through the fall. Notably, the non-whiting sector had an average of 92 fewer vessels participating each month to date in 2020 relative to the February 15, 2019 baseline; ranging from 41 fewer vessels in March to 156 fewer vessels than the 2014-2019 median of 475 vessels in September.

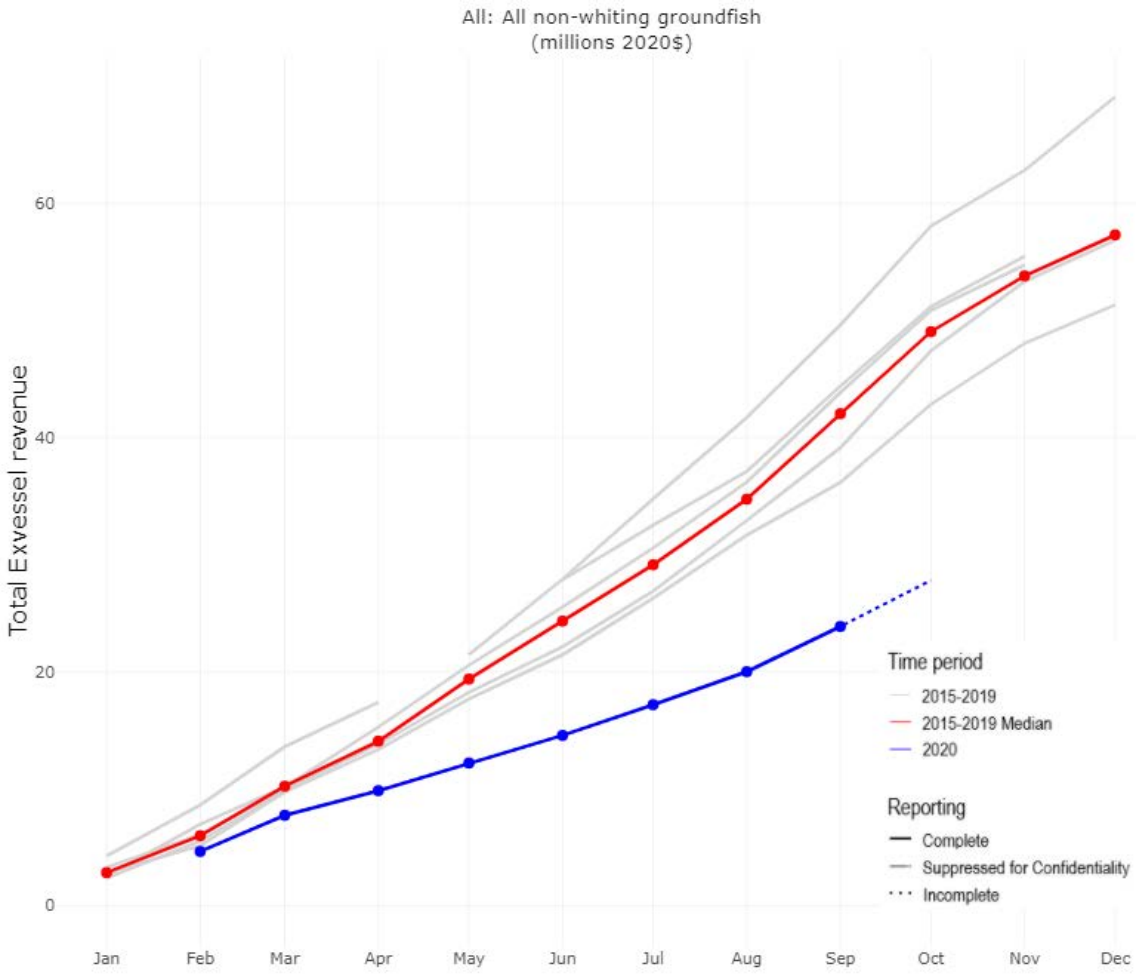

Figure 2. Cumulative monthly ex-vessel revenue for all non-whiting groundfish sectors across all West Coast states by year, 2015-2019 (grey lines); 2015-2019 median (red line); and 2020 (blue line) with reported fish ticket data to date (11/12/2020). Partial data shown in dotted blue line. Source: EDC Landings Tracker.

The GMT will continue to monitor the status of fisheries in 2020, and provide additional information to the Council at the March 2021 meeting when 2020 landings data will be mostly complete.

Rebuilding species scorecards

Cowcod and yelloweye rockfish mortalities are expected to be below their ACLs, fishery allocations, harvest guidelines (HGs), and shares for all sectors in 2020 (Appendix 1). The 2021 scorecard only contains yelloweye rockfish, because cowcod was estimated rebuilt in the 2019 stock assessment (Appendix 2).

The scorecards incorporate updated projections for the nearshore and non-nearshore sectors that use new 2019 haul-level observer data. The 2020 scorecard has been updated to reflect changes to the projected impacts to the Oregon recreational and Tribal sectors (Appendix 1). Assuming yelloweye bycatch in the directed commercial Pacific halibut fishery continues to be as high as 2019 and projected impacts reflect that assumption, the projected impacts from all fishery sectors

included in the biennial harvest specifications and management measures analysis[1] results in total projected impacts of 39.2 mt, which is below the ACT of 41.7 mt and ACL of 50 mt (Appendix 2). The GMT will continue to track projected impacts to yelloweye rockfish inseason, and will notify the Council if projected impacts increase or the ACL is being approached.

Chinook salmon scorecard

Table 11 shows the inseason bycatch estimates through November 17, 2020 and thresholds from the 2017 Biological Opinion for Chinook salmon. Bycatch amounts and rates have remained relatively low throughout the year, so both whiting and non-whiting thresholds are unlikely to be reached or exceeded in 2020.

Table 11. Inseason bycatch estimates by sector and threshold for Chinook salmon (number of fish) through November 17, 2020.

Sector	Sub-Sector	Catch To Date	Threshold	Percent of Threshold
Whiting	Catcher Processor	666	11,000	27%
	Mothership	67		
	Shoreside	1,724		
	Tribal b/	560		
	Total	*3,018*		
Non-Whiting	Bottom Trawl	355	5,500	17%
	Midwater Trawl	31		
	Tribal	25		
	Fixed Gear	500		
	WA Rec			
	OR Rec + longleader			
	CA Rec			
	Total	*911*		
All groundfish fisheries		3,929	16,500	24%

a/ GMT proposed assumption of 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 applies to groundfish fisheries occurring outside of salmon seasons.

The GMT Recommends the Council:

1) **Set the Pacific whiting set-aside for research activities and the pink shrimp fishery at the GAP-recommended 750 mt for 2021**
2) **For sablefish DTL:**
    a) **adopt Option 1 for OAN in 2021 (no action needed for LES)**
    b) **adopt Option 1 sablefish trip limits for LES and OAS in 2021**
3) **Adopt Option 1 for both LEFG and OA trip limits for lingcod south of 40° 10′ N. lat. where LEFG would be 1,600 lbs. / 2 months and OA would be 700 lbs. / month.**
4) **Adopt Option 1 for OA shortspine and longspine thornyhead south of 34° 27′ N. lat. to adjust the trip limit to 100 lbs. / day and no more than 1,000 lbs. / 2 months.**

[1] https://fisheriesmedia.s3.amazonaws.com/2020-09/2021-22SpexAnalyticalDoc-forweb.pdf

Appendix 1. 2020 Rebuilding species allocations[a] and projected mortality impacts (mt).

Fishery	Cowcod b/		Yelloweye		
Date: 12 November 2020	**Allocations a/**	**Projected Impacts**	**HG Allocations a/**	**ACT Allocations a/**	**Projected Impacts**
Off the Top Deductions	2.0	2.0	6.1	6.1	11.3
EFP b/	0.00	0.00	0.24	0.24	0.02
Research c/	2.0	2.0	2.9	2.9	1.6
Incidental OA d/	0.0	0.0	0.6	0.6	8.0
Tribal e/			2.3	2.3	1.6
Bottom Trawl					0.0
Troll					0.0
Fixed gear			2.3	2.3	**1.6**
mid-water					0.0
whiting					
Trawl Allocations	2.2	0.8	3.4		0.1
-SB Trawl	2.2	0.8	3.4		0.1
-At-Sea Trawl			0.0		0.0
a) At-sea whiting MS					
b) At-sea whiting CP					
Non-Trawl Allocation	3.8	3.2	39.5	30.3	13.7
Non-Nearshore		1.6	2.1	1.7	0.8
LE FG		1.6			0.7
OA FG					0.1
Directed OA: Nearshore		0.0	6.0	4.7	2.2
Recreational Groundfish					
WA			10.2	8.1	**1.8**
OR			9.1	7.2	**5.6**
CA		1.6	11.9	9.4	3.3
TOTAL	6.0	6.0	49.0	36.4	**25.1**
Harvest Specification	**6.0**	**6.0**	**49**	**43**	39
Difference	0.0	0.0	0.0	6.6	**13.9**
Percent of ACL	100.0%	99.3%	100.0%	84.6%	64.3%
Key			= not applicable		
	--		= trace, less than 0.1 mt		
			= Fixed Values		
			= off the top deductions		

a/ Formal allocations are represented in the black shaded cells and are specified in regulation in Tables 1b and 1e. The other values in the allocation columns are 1) off the top deductions, 2) set asides from the trawl allocation 3) ad-hoc allocations recommended in the 2019-2020 EIS process, 4) HG for the recreational fisheries for yelloweye rockfish.

b/ EFPs are amounts set aside to accommodate anticipated applications. Values in this table represent the estimates provided by the applicants and approved by the Council, which are currently specified in regulation.

c/ Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs.

d/ The GMT's best estimate of impacts as analyzed in the 2019-2020 Environmental Impact Statement (Appendix B), which are currently specified in regulation.

e/ Tribal values in the allocation column represent the values in regulation. Projected impacts are the tribes best estimate of catch.

Appendix 2. 2021 Rebuilding species allocations[a] and projected mortality impacts (mt).

Fishery	Yelloweye		
Date:	**HG Allocations a/**	**ACT Allocations a/**	**Projected Impacts f/**
Off the Top Deductions	8.85	8.85	**16.0**
EFP b/	0.24	0.24	0.02
Research c/	2.9	2.92	2.9
Incidental OA d/	0.69	0.69	**8.04**
Tribal e/	5.0	5.0	5.0
Bottom Trawl			0.0
Troll			0.0
Fixed gear	5.0	5.0	5.0
mid-water			0.0
whiting			
Trawl Allocations	3.3	3.3	0.6
-SB Trawl	3.3	3.3	0.6
-At-Sea Trawl	0.0		0.0
a) At-sea whiting MS			
b) At-sea whiting CP			
Non-Trawl Allocation	37.9	29.5	22.6
Non-Nearshore	7.8	6.2	3.9
LE FG			
OA FG			
Directed OA: Nearshore			
Recreational Groundfish			
WA	9.7	7.5	5.7
OR	8.8	6.9	4.5
CA	11.4	8.9	8.5
TOTAL	50.1	41.7	39.2
Harvest Specification	**50**	**41.7**	**41.7**
Difference	0.0	0.1	2.5
Percent of ACL	100.1%	99.9%	94.0%
Key	= not applicable		
	= trace, less than 0.1 mt		
	= Fixed Values		
	= off the top deductions		

a/ Formal allocations are represented in the black shaded cells and are specified in regulation in Tables 1b and 1e. The other values in the allocation columns are 1) off the top deductions, 2) set asides from the trawl allocation 3) ad-hoc allocations recommended in the 2021-2022 EIS process, 4) HG for the recreational fisheries for yelloweye rockfish.

b/ EFPs are amounts set aside to accommodate anticipated applications. Values in this table represent the estimates provided by the applicants and approved by the Council, which are currently specified in regulation.

c/ Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs.

d/ The GMT's best estimate of impacts as analyzed in the 2021-2022 Environmental Impact Statement, which are currently specified in regulation.

e/ Tribal values in the allocation column represent the values in regulation. Projected impacts are the tribes best estimate of catch.

f/ taken from Agenda Item F.1.Attachement 8, June 2020, draft analytical document