

**GROUND FISH MANAGEMENT TEAM REPORT ON BIENNIAL MANAGEMENT
 MEASURES FOR 2019-2020**

In [Agenda Item F.9.a, GMT Report 1, November 2017](#), the Groundfish Management Team (GMT) provided background information and an assessment of workload on the new management measures identified at the September Pacific Fishery Management Council (Council) meeting. This report covers Management Measures 1, 2, and 4 through 16 from the Action Item Checklist ([Agenda Item F.9., Attachment 1](#)). Items 3 (Report 2) and 17 through 33 (Report 4) will be in a separate reports.

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Action Item #1: Any outstanding Specifications

The GMT did not identify any outstanding items from Agenda Item F.6.

Action Item # 2: Updates to Selected Rockfish Conservation Area Coordinates

The GMT was informed by California Department of Fish and Wildlife (CDFW) staff that proposed revisions will not open areas closed to fishing since Rockfish Conservation Area (RCA) implementation, and would better align RCA boundaries with depth contours. **If the changes would be limited to those stipulations, the GMT recommends adopting the revisions for detailed analysis.** However, the GMT does not recommend including any revisions which opens areas that have not been fished, due to the increase in analytical complexity and associated workload.

Action Item #4: Annual Catch Targets

Annual catch targets (ACTs) are a management target set below annual catch limits (ACLs). An ACT may be used as an accountability measure, in cases where there is increased uncertainty in inseason catch monitoring, to ensure an ACL is not exceeded.

Cowcod

The most recent stock assessment indicated the stock was rebuilding faster than originally anticipated, however the Council elected to maintain a precautionary approach with a four mt ACT, ten mt ACL, in 2015. The ACT could be increased to a value more than four mt and less than ten mt while still maintaining this precautionary approach, recognizing that the stock is projected to be rebuilt by 2020, but could provide increased opportunities (e.g. year round fishing opportunities,

deeper depths) to the recreational fishery in southern California. The GMT notes that the projected date of 2020 is based on full attainment of the ACL, therefore there is potential for the stock to rebuild prior to 2020, if actual impacts are less than the ACL. **Therefore, the GMT recommends the Council consider the use of an ACT between 4 mt and the ACL for cowcod for further analysis.**

Action Item # 5: Recommend harvest guidelines for species managed within a complex

Blackgill rockfish S of 40° 10' N lat.

The GMT recommends status quo, maintaining a harvest guideline (HG) for blackgill rockfish within the Slope Rockfish complex south of 40°10' N. lat, until the Amendment 26 rulemaking is completed.

Blue/deacon rockfish S of 42° N lat.

To prevent overfishing with the stock status was in the precautionary zone,, blue deacon rockfish south of 42° N. lat. has been managed with a HG since 2009. The 2017 stock assessment projects that the stock will be above the 40 percent depletion management target by 2019 ([Agenda Item E.8., Attachment 9, September 2017](#)). **Therefore, the GMT does not recommend the use of a HG for blue/deacon rockfish south of 42° N. lat for 2019-2020.**

Action Item #6: Two-Year Trawl/Non-Trawl Allocations

In addition to the overfished species allocations (yelloweye rockfish and cowcod), there are some species for which trawl and non-trawl allocations are specified every two years. For the species below, data were queried from the 2016 Fisheries Observation Science (FOS) program's groundfish expanded multi-year mortality (GEMM) product and state recreational estimates, except where noted. Each table below shows the ACLs, HGs, total groundfish mortality (through 2016), trawl/non-trawl allocations and mortality, and the percentage of sector mortality of total groundfish mortality from 2011-2018. The GMT notes that all recommendations will be used in the integrated alternatives analysis and can be further refined in April.

Overfished Species

Cowcod Rockfish S of 40° 10' N. lat.

Cowcod rockfish south of 40°10' N. lat. has been managed with a 40 percent trawl and 60 percent non-trawl allocation (Table 1). **The GMT recommends adopting status quo proportions for cowcod for trawl/non-trawl allocations for analysis.** Final values will be calculated once the Council determines an ACT level.

Table 1. Cowcod fishery statistics from 2011-2018

Year	ACL	HG	Directed Groundfish Mortality	Trawl			Non-Trawl		
				All.	Mortality	% Total	All.	Mortality	% Total
2011	3	2.7	0.8	1.8	0	0%	0.9	0.8	100%
2012	3	2.7	0.9	1.8	0.1	11%	0.9	0.8	89%
2013	3	2.9	1.7	1	0.2	12%	1.9	1.5	88%
2014	3	2.9	1	1	0.2	20%	1.9	0.8	80%
2015	10	8	0.9	1.4	0.4	44%	2.6	0.5	56%
2016	10	8	1	1.4	0.3	30%	2.6	0.7	70%
2017	10	8		1.4			2.6		
2018	10	8		1.4			2.6		

* 4 mt ACT set under the HG starting in 2015

Yelloweye Rockfish

Yelloweye rockfish is one of the most constraining stocks for both the individual fishing quota (IFQ) and non-trawl fisheries. Under Agenda Item F.6, the Council adopted three alternative spawning potential ratio (SPRs) alternatives for analysis (65, 70, and 76 percent).

The GMT recommends adopting status quo proportions for trawl/non-trawl allocations (8 percent, 92 percent, respectively) for each alternative ACL (Table 2 and Table 3) for analysis. Additional trawl/non-trawl allocations for yelloweye rockfish could be developed for the April meeting.

Table 2. Yelloweye rockfish statistics from 2011-2018.

Year	ACL	HG	Directed Groundfish Mortality	Trawl			Non-Trawl		
				All.	Mortality	% Total	All.	Mortality	% Total
2011	17	11.1	8.8	0.6	0.1	1%	10.5	8.7	99%
2012	17	11.1	10.6	0.6	0	0%	10.5	10.6	100%
2013	18	12.2	9.1	1.0	0.1	1%	11.2	9.0	99%
2014	18	12.2	8.7	1.0	0.1	1%	11.2	8.6	99%
2015	18	12.2	10.1	1.0	0	0%	11.2	10.1	100%
2016	19	13.2	8.5	1.1	0	0%	12.1	8.5	100%
2017	20	14.6		1.1			13.1		
2018	20	14		1.1			12.9		

Table 3. Status Quo Trawl/Non-Trawl Percentages By ACL Alternative for 2019-2020.

HCR Alternative	2019				2020			
	ACL	HG	Trawl	Non- Trawl	ACL	HG	Trawl	Non Trawl
SPR=76%	29.2	23.5	1.8	21.7	30.2	24.5	1.9	22.6
SPR=70%	38.7	33	2.6	30.4	39.9	34.2	2.7	31.5
SPR=65%	47.6	41.9	3.3	8.6	48.9	43.2	3.4	39.8

Non-Overfished Species

Big Skate

In the 2017-2018 biennium, big skate was reclassified from an ecosystem component species to a single-species management stock. At that time, a 95 percent trawl five percent non-trawl allocation ratio was set. Currently, big skate is managed by trip limits in the shorebased IFQ program. Note that a sorting requirement was not put into place until June 1, 2015, and therefore species compositions were applied as done in [Agenda Item I.8.a, Supplemental GMT Report, November 2015](#).

The GMT recommends continuing the 95 percent trawl and 5 percent non-trawl allocation for big skate for 2019-2020 for analysis. The proposed 2019-2020 ACLs will remain the same at 494 mt, and the five percent non-trawl allocation will cover historical removals and simultaneously ensure that fish that could be utilized by the trawl sector are not stranded (Table 4).

Table 4. Big skate fishery statistics from 2011-2018.

Year	ACL	HG	Directed Groundfish Mortality	Trawl			Non-Trawl		
				All.	Mortality	% Mort	All.	Mortality	% Mort.
2011			298.9		289.3	97%		9.6	3%
2012			289		278.9	97%		10.1	3%
2013			187.2		175.2	94%		12	6%
2014			441.4		431.8	98%		9.6	2%
2015			240		234.3	98%		5.7	2%
2016			366.5		360.6	98%		5.9	2%
2017	494	437		414.8			21.8		
2018	494	437		414.8			21.8		

Longnose Skate

Currently, the longnose skate HG is allocated 90 percent to trawl and 10 percent to non-trawl under unlimited trip limits. As in the previous three bienniums, there is a proposed 2,000 mt constant catch ACL ([Agenda Item F.6., Attachment 1, November 2017](#)). Neither sector has exceeded its allocation in recent years as shown in Table 5. **Therefore, the GMT recommends continuing**

with the status quo 90 percent to trawl and 10 percent to non-trawl for longnose skate for 2019-2020 for analysis.

Table 5. Longnose skate fishery statistics from 2011-2018.

Year	ACL	HG	Directed Groundfish Mortality	Trawl			Non-Trawl		
				All.	Mortality	% Mort.	All.	Mortality	% Mort.
2011	1,349	1,220	898.9	1,159	811.3	90%	61	87.6	10%
2012	1,349	1,220	983.5	1,159	917.5	93%	61	66	7%
2013	2,000	1,928	980.9	1,735	923.9	94%	193	57.1	6%
2014	2,000	1,928	901.9	1,735	850.6	94%	193	51.3	6%
2015	2,000	1,927	836.7	1,734	780.7	93%	193	56	7%
2016	2,000	1,927	903.7	1,734	824.4	91%	193	79.3	9%
2017	2,000	1,853		1,667.7			185.3		
2018	2,000	1,853		1,667.7			185.3		

* Note: In 2011 and 2012, the trawl/non-trawl split was 95-5. It was changed to 90-10 in 2013-2014.

Minor Shelf Rockfish Complex North of 40° 10' N. lat.

The shelf rockfish complex north of 40°10' N. lat. has been managed with a 60.2 percent trawl and 39.8 percent non-trawl allocation. Both sectors have remained well below their allocations in recent years (Table 6). **The GMT recommends status quo trawl/non-trawl allocations for the shelf rockfish complex north of 40°10' N. lat. for analysis.**

Table 6. Minor shelf rockfish complex north of 40°10' N. lat. fishery statistics from 2011-2018.

Year	ACL	HG	Directed Groundfish Mortality	Trawl			Non-Trawl		
				All.	Mortality	% Total	All.	Mortality	% Total
2011	968	925	44.8	557	17	38%	368	27.8	62%
2012	968	925	68.0	557	41.2	61%	368	26.8	39%
2013	968	903	51.5	543	30.8	60%	359	20.7	40%
2014	968	903	62.6	543	34.9	56%	359	27.7	44%
2015	1,944	1,872	51.4	1,127	34.1	66%	745	17.3	34%
2016	1,952	1,880	55.0	1,132	38.5	70%	748	16.5	30%
2017	2,049	1,965		1,183.1			782.1		
2018	2,047	1,963		1,181.8			784.1		

Minor Shelf Rockfish Complex S of 40° 10' N. lat.

The minor shelf rockfish complex south of 40° 10' N. lat. has been managed to sector-specific allocations of 12.2 percent to trawl and 87.8 percent to non-trawl. Both sectors have remained significantly below their allocations since the ACL more than doubled in 2015 (Table 7). **The GMT recommends status quo trawl/non-trawl allocations for the shelf rockfish complex south of 40° 10' N. lat. for analysis.**

Table 7. Fishery statistics for the minor shelf rockfish complex south of 40° 10' N. lat. from 2011-2018.

Year	ACL	HG	Directed Groundfish Mortality	Trawl			Non-Trawl		
				All.	Mortality	% Total	All.	Mortality	% Total
2011	714	701	329.4	86	3.0	1%	615	326.4	99%
2012	714	701	391.2	86	13.5	3%	615	377.7	97%
2013	714	668	418.0	81	20.9	5%	587	397.1	95%
2014	714	668	390.2	81	10.0	3%	587	380.2	97%
2015	1,624	1,575	541.8	192	9.4	2%	1,383	532.4	98%
2016	1,625	1,576	429.1	192	4.6	1%	1,384	424.5	99%
2017	1,623	1,576		192.2			1,383.6		
2018	1,624	1,577		192.4			1,384.4		

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

Bocaccio rockfish south of 40° 10' N. lat. was declared rebuilt in the assessment adopted in June of 2017 ([Agenda Item F.4., Attachment 3, June 2017](#)), and is estimated to be at 48.6 percent depletion in 2017 (Table 8). The 2019-2020 ACLs are almost three times as high as those in 2017-2018. **The GMT recommends the status quo proportion of 39 percent trawl and 61 percent non-trawl for bocaccio rockfish south of 40° 10' N. lat. in 2019-2020 for analysis.**

Table 8. Fishery statistics for bocaccio south of 40° 10' N. lat. from 2011-2018.

Year	ACL	HG	Total Mortality	Trawl			Non-Trawl		
				All.	Mortality	% Mort.	All.	Mortality	% Mort.
2011	263	249.6	110.8	60	5.3	5%	189.6	105.5	95%
2012	263	249.6	137.1	60	8.8	6%	189.6	128.3	94%
2013	320	311.6	147.9	74.9	13	9%	236.7	134.9	91%
2014	337	328.6	113.8	79	8.7	8%	249.6	105.1	92%
2015	349	341	137.9	81.9	39.7	29%	258.8	98.2	71%
2016	362	354	116.4	85	42.9	37%	269	73.5	63%
2017	790	774.6		302.4			472.2		
2018	741	725.6		283.3			442.3		

Canary Rockfish

Canary rockfish was declared rebuilt in 2015 and saw over a 10-fold increase in the ACL from the 2015-2016 to the 2017-2018 biennium. In the last biennium, the Council and its advisory bodies

looked at a wide range of allocations, based on both recent and historical mortality. With the uncertainty of the future of the fishery, the Council gave each sector enough quota to cover any projected impacts with some additional quota as buffer. The Council adopted specific allocations (in mt) by sector, then summed up to the trawl/non-trawl allocations, which resulted in approximately 72 percent trawl and 28 percent non-trawl allocations.

The modeled estimated impacts for the shorebased IFQ sector for 2019-2020 may be highly uncertain and different from those in 2017 because the proposed trawl RCA and essential fish habitat (EFH) modifications are scheduled for final action in April 2018, the trawl gear regulations package has a targeted implementation date of 2019, and there may be additional access to yelloweye rockfish. Additionally, there is still some uncertainty concerning impacts from non-trawl sectors as there is less than one full year of data available for fisheries under the much larger 2017-2018 ACLs, and sector-specific HGs. Additionally, there is preliminary information on landings currently available, however information on discard mortality is not yet available.

Maintaining the current percentage (72 percent trawl; 28 percent non-trawl), which are based on the specific allocations to each sector in 2017-2018, does not appear to be problematic for 2019-2020, since preliminary 2017 projected attainments are low for both (Table 9). **Therefore, the GMT recommends status quo allocations for canary rockfish, based on the de facto 72 percent trawl and 28 percent non-trawl split for 2019-2020 for analysis.**

Table 9. Canary rockfish trawl, non-trawl allocations based on status quo proportions compared to 2017 to date removals (minus minor amounts of nearshore and non-nearshore discards).

Year	ACL	HG	Trawl	Non-Trawl
2019 allocations	1,450	1,379	992.9	386.1
2020 allocations	1,368	1,296.9	933.8	363.1
2017 removals			237.6	96.8

Action Item #7: Within-Trawl Allocations

The proposed rulemaking for Amendment 21-3 would manage darkblotched rockfish and Pacific ocean perch (POP) as set-aside species instead of allocations starting in 2018. Therefore, the only remaining species with within-trawl allocations are canary and widow rockfishes. Widow rockfish is a formally allocated Amendment 21 species and will be automatically implemented unless other action is taken. Table 10 below shows the within-trawl allocations based on the preliminary preferred alternative (PPA) ACL adopted under Agenda Item F.6. with off-the-top deductions. Canary rockfish is a two-year allocated species (described above in Action Item #6), and therefore the within-trawl allocations are dependent on the trawl/non-trawl allocation.

Table 10. 2019-2020 Widow A-21 allocations

Year	ACL	HG	Shorebased IFQ	Catcher Processor	Mothership
2019	11,831	11,594.3	9,938.9	358.7	253.2
2020	11,199	10,962.3	9,397.1	339.2	239.4

The GMT recommends the Council adopt a within trawl allocation for canary rockfish of 946.9 mt (2019) and 887.8 mt (2020) to shorebased IFQ, 16 mt to the catch processor (CP), and 30 mt to the mothership (MS) for analysis. Those values are not expected to constrain the at-sea whiting sectors given that their past ten year removals have been considerably less (Table 12).

Table 11. Within Trawl allocations for canary rockfish based on the status quo (2017) trawl allocation.

Year	ACL	Trawl Allocation	Shorebased IFQ	Catcher Processor	Mothership
2019	1,450	992.9	946.9	16	30
2020	1,368	933.8	887.8	16	30

Table 12. At-sea canary rockfish historical removals compared to the proposed allocations.

Sector	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
CP	2.4	0.3	0.1	0.5	0.3	0.2	0.3	0.1	0.1	2.1
MS	1.3	2.3	1.0	0.6	0.2	0.5	0.4	0.1	0.4	4.5

Action Item #8: At-Sea Set Asides

Unlike set-asides that are taken as off-the-top deductions after setting the ACL, set-asides for some species are taken from the trawl allocation to accommodate bycatch in the at-sea whiting fishery. Like other set-asides, these impacts are not managed inseason, so the set-aside amounts need to be large enough to accommodate anticipated catch. Species with at-sea sector set-asides will be managed on an annual basis unless there is a risk of a harvest specification being exceeded, unforeseen impact on another fishery, or conservation concerns in which case inseason action may be taken. **The GMT recommends the Council adopt the at-sea set-asides presented in Table 13 for 2019-2020 for analysis. The GMT continues to recommend no set-asides for spiny dogfish or the Other Fish complex, as in previous bienniums.**

Table 13. At-sea set-aside values in regulation for 2018, the 2016 mortality, the 2017 catch through November 7, 2017, and the GMT recommendation for 2019-2020.

Species/Species Group	Area	Value in 2018 Regulations (mt)	2016 Mortality	2017 Mortality (to date)	GMT Recommendation for 2019-2020
YELLOWEYE ROCKFISH	Coastwide	0	0	0	0
Arrowtooth flounder	Coastwide	70	10.07	14.43	70
Dover sole	Coastwide	5	0.29	0.28	5
English sole	Coastwide	5	0	0.03	5
Lingcod	N. of 40° 10' N. lat.	15	0.19	0.96	15
Longnose skate	Coastwide	5	0.83	0.92	5
Longspine thornyhead	N. of 34° 27' N. lat.	5	0	0	5
Minor shelf rockfish	N. of 40° 10' N. lat.	35	4.25	15.45	35
Minor slope rockfish	N. of 40° 10' N. lat.	100	43.25	79.41	100
Other flatfish	Coastwide	20	2.85	6.91	20
Pacific cod	Coastwide	5	0	0.19	5
Petrale sole	Coastwide	5	0	0	5
Sablefish	N. of 36° N. lat.	50	27.74	148.89	50
Shortspine thornyhead	N. of 34° 27' N. lat.	20	10.57	24.36	25
Starry flounder	Coastwide	5	0	0	5
Yellowtail rockfish	N. of 40° 10' N. lat.	300	62.28	277.2	300

Additionally, 10 mt of Pacific halibut (legal and sublegal, round weight) is set-aside to accommodate bycatch in the at-sea Pacific whiting fishery and in the shorebased trawl fishery south of 40° 10' N. lat. (estimated to be approximately 5 mt each).

In 2017, the at-sea sectors exceeded their set-asides of sablefish and shortspine thornyhead north of 34° 27' N. lat. **The GMT does recommend a 2019 set aside of 25 mt for shortspine thornyhead to cover the recent maximum.** Shortspine thornyhead is under-attained by the trawl sector, so adding an additional 5 mt to cover the at-sea sector causes no foreseeable harm to the trawl sector.

The GMT discussed whether or not to increase the sablefish set-aside for the at-sea sectors. It is our understanding that the at-sea sectors encountered a large amount of the 2014 year class in 2017, which may have been an anomaly. From 2002-2016, the largest amount of sablefish caught in the at-sea sectors was 29 mt in 2004, with an average of 12 mt. Sablefish north of 36° N. lat. is one of the most highly attained and valuable groundfish stocks, and the GMT has concerns of stranding sablefish in the at-sea set-aside. Moving 100 mt from the trawl allocation to the at-sea set-asides to cover the anomalous high of 2017 would likely significantly impact the trawl

sector. Therefore, **the GMT continues to recommend the set-aside of 50 mt for sablefish but does note our concerns to the at-sea sector of the potential impact of exceeding the set-aside.**

[Amendment 21-3](#) to the Pacific Coast Groundfish Fishery Management Plan (FMP) proposes modifying the management of darkblotched rockfish and POP in the at-sea sectors from allocations to set-asides. Under the proposed Amendment 21-3, the current formula in the FMP, established in Amendment 21, would be used to determine set-aside amounts. However, as described under Action Item #27, the Council could remove the Amendment 21 formula and establish set-asides for darkblotched and POP within each biennium, like the set-asides in Table 14. Additionally, the Council could modify Amendment 21-3 in Action Item 33 by retaining the Amendment 21 formula to determine set-aside values, removing the automatic authority to close the sector when attaining the set-aside plus the buffer. As the GMT and the GAP are not recommending a buffer for POP due to the large ACLs, Table 14 shows the within-trawl allocations and set-asides for 2019-2020. Even though the GMT is not recommending a buffer, Table 15 below shows the darkblotched rockfish set-aside values under Amendment 21-3, with and without the 50 mt buffer, as used in the 2017-2018 biennium.

Table 14. POP ACL and resulting CP and MS Allocation/Set-Aside Values Per Amendment 21.

Year	ACL	IFQ	CP	MS
2019	4,340	3,697.3	237.1	167.4
2020	4,229	3,602.2	231	163.0

Table 15. Darkblotched rockfish ACL and resulting CP and MS Allocation/Set-Aside Values Per Amendment 21.

Year	ACL	With Buffer (Start of Year)			Without Buffer		
		IFQ	CP	MS	IFQ	CP	MS
2017	641	507.6	16.4 ^a	11.6 ^b	552.6	17.8	12.6
2018	653	518.4	16.7	11.8	563.4	18.2	12.8
2019	765	613.8	19.8	14	658.8	21.3	15
2020	815	658.8	21.3	15	703.9	22.7	16

^a Allocation post April and June inseason actions is 41.4 mt.

^b Allocation post April and June inseason actions is 36.6 mt.

Action Item #9: Within Non-Trawl HGs/Shares

Overfished Species

Under this action item, the Council will adopt the preliminary two-year within non-trawl allocations for cowcod and yelloweye rockfish.

Cowcod

The non-trawl fisheries are currently managed under a collective non-trawl allocation of 64 percent (36 percent to trawl). In other words, there are not individual HGs or shares for each of the non-trawl fisheries for cowcod. **The GMT recommends using the status quo approach of a collective non-trawl allocation for all the non-trawl fisheries (i.e., no separate HGs by fishery) for cowcod for analysis.**

Yelloweye

At this time, the GMT recommends using status quo proportions for yelloweye rockfish from 2018 for the 2019-2020 within non-trawl HGs/Shares. Note these differ slightly than for 2017 during which the CA nearshore fishery was given a “one-time” increase from unused Oregon research set-aside. After analyzing the range of management measures, the GMT may provide recommendations on different within-trawl HGs in April since yelloweye rockfish is constraining to all sectors, but to varying degrees that would benefit from further thought. For example, attainments of target stocks in the nearshore and non-nearshore are high for most except for lingcod.

Table 16. Status quo non-trawl percentages of yelloweye rockfish by sector.

Sector	2018 HG	SQ %	2019			2020		
			SPR=65%	SPR=70%	SPR=76%	SPR=65%	SPR=70%	SPR=76%
Non-Nearshore	0.7	5.3%	2.0	1.6	1.1	2.1	1.7	1.2
OR Nearshore ¹	1.4	10.9%	4.2	3.3	2.4	4.3	3.4	2.5
CA Nearshore ¹	0.6	4.7%	1.8	1.4	1.0	1.9	1.5	1.1
WA Rec.	3.3	25.8%	10.0	7.8	5.6	10.3	8.1	5.8
OR Rec.	3.0	23.1%	8.9	7.0	5.0	9.2	7.3	5.2
California Rec	3.9	30.2%	1.7	9.2	6.5	12.0	9.5	6.8
Total	12.9	100.0%	38.6	30.4	21.7	39.8	31.5	22.6

1: Considered “shares” not HGs although functionally the same

Non-Overfished Species

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

The GMT recommends that the bocaccio rockfish within non-trawl allocations be based on status quo proportions.

Sector	2018 Allocation	SQ %
Non-Trawl	442.3	100%
Non-Nearshore	135.1	30.5%
Nearshore	1.7	0.4%
CA Rec.	305.5	69.1%

Canary Rockfish

The GMT recommends that the 2019-2020 canary rockfish within non-trawl HGs/shares be based on status quo proportions for analysis. For 2017, the Council chose specific allocations (in mt) for each sector, based on projected impacts and some additional to account for uncertainty and changes in behavior. Although individual sector attainments are currently projected to be relatively low across the board in 2017, using the status quo proportions, arising from the sector-specific allocations in 2017-2018, for 2019-2020 could provide greater opportunity for canary rockfish in response to higher yelloweye rockfish allocations.

Table 17. Status quo non-trawl percentages of canary rockfish by sector.

Sector	2017 mt	2017-2018 "Allocation"	% taken	SQ proportion	Proposed "allocations"	
					2019	2020
Non-Trawl	96.8	406.5	23.80%		386.1	363.1
Non-Nearshore	3.8	46.5	8.20%	11.40%	44.0	41.4
Nearshore	3.7	100	3.70%	24.60%	95.0	89.3
WA Rec	4.8	50	9.60%	12.30%	47.5	44.7
OR Rec	25.2	75	33.60%	18.50%	71.4	67.2
CA Rec	59.3	135	43.90%	33.20%	128.2	120.5

Blackgill Rockfish S of 40° 10' N. lat.

The GMT recommends the status quo proportions for blackgill rockfish south of 40° 10' N. lat. of 60 percent LE and 40 percent OA for 2019-2020 for analysis. The GMT notes that Table 18 does not show the allocation or shares, but provides a historical look at total mortality by sector.

Table 18. Historical mortality of blackgill rockfish by sector.

Year	LE Mort	% total	OA Mort	% total	Total Mort
2011	84.1	62	50.9	38	135
2012	53.7	46	62.4	54	116
2013	13.9	74	5	26	18.9
2014	28.1	85	5	15	33.1
2015	18.4	85	3.3	15	21.7
2016	21.9	90	2.3	10	24.2

Sablefish S of 36° N. lat.

For the daily trip limit (DTL) sablefish fishery south of 36° N. lat., there is currently a 70-30 percent sharing of the non-trawl allocation between the limited entry south (LES) and open access south (OAS) sectors. Prior to 2017-2018, there was a 55-45 split. The GMT uses these shares to monitor the fishery inseason. Table 19 below shows in metric tons the non-trawl allocation from 2013-2018, the landed share for each sector (used for modeling, equal to the share minus assumed discard mortality) and landings, and the percent attainment of each share.

Table 19. Non-trawl allocations from 2013-2018 with the landed share for each sector, landings, and percent attainment.

Year	Non-Trawl Allocation	LES			OAS		
		Share	Landings	% Attain.	Share	Landings	% Attain.
2013	832	443	435.2	98	362	60.4	17
2014	902	480	409.4	85	393	29.7	8
2015	994	529	355.8	67	433	29.3	7
2016	1,088	578	350.5	61	473	21.8	5
2017	1,078	728	198.4	27	312	43.5	14
2018	1,125	759			325		

*2017 landings through October 31

The GMT recommends continuing with the 70-30 percent sharing of sablefish between LES and OAS for 2019-2020 for analysis.

Nearshore Rockfish Complex North of 40° 10' N. lat.

The GMT recommends that the Council consider continuing using the status quo sharing arrangement used to set state-specific HGs for the nearshore rockfish complex north of 40° 10' N. lat. (Table 20). Note that the HGs (grey shading) accounting for off-the-top deductions remain the same for California and Washington for both Oregon (OR) blue/deacon (BDR) stock complex alternatives being proposed as a new management measure (SQ = OR BDR in the complex; Alt. 1 and Alt. 2 remove OR BDR from the complex).

Table 20. Proposed state HGs for the Nearshore Rockfish North Complex based on the status quo sharing arrangement. “Contr.” is the ACL contribution for each stock, which is divvied amongst states by the SQ sharing arrangement percentages.

Stock	Sharing Arrangement			2019				2020			
	WA%	OR%	CA%	Contr.	WA	OR	CA	Cont.	WA	OR	CA
Black and yellow	13%	59%	29%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BDR (CA)	0%	0%	100%	28.1	0.0	0.0	28.1	29.3	0.0	0.0	29.3
BDR (OR)	0%	100%	0%	101.5	0.0	101.5	0.0	98.4	0.0	98.4	0.0
BDR (WA)	100%	0%	0%	7.3	7.3	0.0	0.0	7.0	7.0	0.0	0.0
Brown	0%	8%	92%	1.9	0.0	0.2	1.7	1.9	0.0	0.2	1.8
Calico	NA	NA	NA	-	0.0	0.0	0.0	-	0.0	0.0	0.0
China	32%	55%	13%	26.1	8.4	14.4	3.4	25.5	8.2	14.0	3.3
Copper	26%	49%	25%	10.9	2.8	5.3	2.7	11.2	2.9	5.5	2.8
Gopher	13%	59%	29%	-	0.0	0.0	0.0	-	0.0	0.0	0.0
Grass	13%	59%	29%	0.5	0.1	0.3	0.2	0.5	0.1	0.3	0.2
Kelp	NA	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Olive	13%	59%	29%	0.3	0.0	0.2	0.1	0.3	0.0	0.2	0.1
Quillback	13%	59%	29%	6.2	0.8	3.6	1.8	6.2	0.8	3.6	1.8
Treefish	13%	59%	29%	0.2	0.0	0.1	0.1	0.2	0.0	0.1	0.1
Total SQ				182.9	19.4	125.6	38.0	180.5	19.0	122.2	39.3
Total Alt 1 or 2				81.4	19.4	24.1	38.0	82.1	19.0	23.9	39.3
off-top				3.2				3.2			
off-top %s					11%	69%	21%		11%	68%	22%
HG SQ				179.7	19.0	123.4	37.3	177.3	18.7	120.1	38.6
HG Alt 1 or 2				78.2	19.0	21.9	37.3	78.9	18.7	21.7	38.6

2019-2020 Season Structures

Lingcod Size Limits

The Council has the ability to consider removals or modifications of the lingcod size limit for all commercial fishery sectors (see [Agenda Item F.9.a, GMT Report 1](#); Item 5 and [Agenda Item F.9, Attachment 1](#) Items 10-16). **The GMT does not recommend that modifications or removal of the lingcod size limit be considered for the 2019-2020 biennium.** That is because: (1) steep declines in the ACLs have occurred for lingcod south of 40°10' N. lat.; (2) the GMT has received more interest from the non-trawl sector to instead increase the lingcod minimum size limit; (3) the IFQ fishery would be expected to receive greater benefits via the proposed new management measure (#29 on the Action Item Checklist) that would allow survival credits of what we understand to be small unmarketable fish.

Action Item #10: Shorebased IFQ

IFQ big skate trip limits

The GMT recommends status quo IFQ big skate trip limits for 2019-2020 for analysis, because the projected 2017 attainment is 88 percent. The GMT notes big skate landings can be volatile, which makes projections uncertain. If tracking low, then trip limits could be increased through future inseason actions.

Action Item #11: Non-Nearshore

There have been requests to increase limited entry fixed gear (LEFG) and open access (OA) trip limits for lingcod north of 40° 10' N. lat. and canary rockfish that will be contingent on the yelloweye rockfish sector-specific HG. Due to considerable declines in the ACLs lingcod south of 40° 10' N. lat., the GMT will likely have to investigate lower LEFG and OA trip limits.

There have also been the following OA trip limit requests for deepwater stocks pertaining only to the non-nearshore that the GMT understands are geared toward allowing greater retention of bycatch:

- a. 500 lb. monthly trip limit for slope and darkblotched rockfish for North of 40° 10' N. lat.
- b. 50 lb. monthly trip limit for shortspine and longspine thornyheads for North of 40° 10' N. lat.

After further consideration of requests from industry, **the GMT recommends status quo trip limits for the shelf rockfish complex and bocaccio, as well as for the period closure (March-April) for the shelf rockfish complex, bocaccio, and lingcod south of 40° 10' N. lat. The GMT also recommends a March-April closure for canary rockfish south of 40° 10' N. lat. to better align with the southern lingcod and shelf rockfish period closures.**

Therefore, the GMT recommends the Council consider the following specific industry requests in addition to the routine trip limit adjustments for other non-nearshore species (e.g., sablefish, lingcod, and canary):

- a. 500 lb. monthly for OA slope and darkblotched rockfish (North of 40° 10' N. lat.)
- b. 50 lb. monthly for OA shortspine and longspine thornyheads for North of 40° 10' N. lat.

- c. **March-April closure for canary rockfish South of 40° 10' N. lat. to would better align with the southern lingcod and shelf rockfish period closures.**

A management measure proposal is being considered for changes to the commercial non-trawl RCA to explore fishing opportunities between 40°10' N. Lat. and 42° 00' N. Lat. by adjusting the seaward RCA from 100 fathoms to 75 fathoms. The intent is to provide greater access to target species while rebuilding overfished stocks. The GMT notes that allowing additional fishing opportunity in this area has been closed since 2003 and may need more detailed habitat analysis. **The GMT recommends the Council consider moving the seaward non-trawl RCA boundary from 100 fathoms to 75 fathoms between 40°10' N. Lat. and 42° 00' N. Lat.**

Action Item #12: Nearshore

There have also been nearshore requests to increase LEFG and open access OA trip limits for lingcod north of 40° 10' N. lat. and canary rockfish that will be contingent on the yelloweye rockfish “shares” (functionally the same as HGs) to the Oregon and California nearshore fisheries. Increases to both are covered in the non-nearshore section above (Action Item #11) as the same LEFG and OA trip limits are shared by both.

After further consideration of requests from industry, **the GMT recommends status quo trip limits for the California nearshore fishery and period closure (March-April) for South of 40° 10' N. lat for analysis.** The GMT will examine other routine management measures for the Oregon nearshore fishery that attain harvest specifications.

Action Item #13: Treaty Fisheries

The tribes are not currently asking for any adjustments to existing trip limits or size limit restrictions under this agenda item.

Action Item #14: WA Recreational

Washington will be considering routine changes to recreational fisheries such as season dates, bag limits, and depth restrictions. Significant changes were implemented for 2017 and 2018 that addressed a lower black rockfish harvest guideline. We will review the most recent catch and effort data along with ACLs and harvest guidelines approved at this meeting to develop a range of management measure alternatives that will keep catch within state specific allocations or harvest guidelines in 2019 and 2020. Specific measures may consider increased access to canary rockfish, revisions to bag limits and depth restrictions.

Action Item #15: OR Recreational

Oregon will be looking at season structure, depth restrictions, and bag limits to keep impacts within appropriate harvest guidelines. Since 2004, yelloweye rockfish has been the most constraining species to the Oregon recreational fishery. However, due to lower ACLs beginning in 2017 for black rockfish and increased groundfish effort, black rockfish has become the primary driver of fisheries regulations. While depth restrictions are the primary tool to limit yelloweye rockfish impacts, limiting fishing to shallower waters has the opposite effect on black rockfish. Additionally, black rockfish constitutes 75-85 percent of the total groundfish landed, in terms of number of fish, from the Oregon recreational fishery. Therefore bag limit adjustments tends to be the tool used to manipulate impacts to black rockfish. Once sector-specific allocations

are identified, through the council or state process, combinations of depth restrictions and bag limits will be explored.

Action Item #16: CA Recreational

California will be considering routine changes to recreational fisheries such as season dates, bag limits, and depth restrictions. Significant changes were implemented for 2017 and 2018 that addressed a lower black rockfish harvest guideline. We will review the most recent catch and effort data along with ACLs and harvest guidelines approved at this meeting to develop a range of management measure alternatives that will keep catch within state specific allocations or harvest guidelines in 2019 and 2020. Specific measures may consider increased access to canary rockfish, revisions to bag limits, and depth restrictions.

PFMC

11/19/2017

Recommendations Summary

2019-2020 Harvest Specifications			
#	Category	Sector	Measure
1	Specifications	All	Adopt final 2019-2020 overfishing limits, final P*/acceptable biological catches, preliminary preferred annual catch limits for stocks and stock complexes
RCA Coordinate Updates, Allocations, and Harvest Guidelines (HG) <i>GMT Recommendations in BOLD</i>			
#	Category	Sector	Measure
2	Revisions	All	Updates to selected Rockfish Conservation Area (RCA) coordinates in California <ul style="list-style-type: none"> • If the changes would be limited to minor corrections, the council adopt the revisions for detailed analysis.
3	Off-the-top deductions		See GMT Report 2
4	ACT		Annual catch targets (ACT), set below the fishery harvest guideline (HG), as necessary, for analysis <ul style="list-style-type: none"> • the Council consider the use of an ACT for cowcod between 4 mt and the ACL for cowcod for further analysis.
5	HG		HGs for species managed within a complex for analysis. <ul style="list-style-type: none"> • status quo, maintaining a harvest guideline (HG) for blackgill rockfish within the Slope Rockfish complex south of 40°10' N. lat, until the Amendment 26 rulemaking is completed • does not recommend the use of a HG for blue/deacon rockfish south of 42° N. lat for 2019-2020

6	Allocations	Trawl, Non-Trawl	<p>Adopt preliminary 2-year trawl and non-trawl allocations</p> <ul style="list-style-type: none"> • adopting status quo proportions for cowcod for trawl/non-trawl allocations for analysis • adopting status quo proportions for yelloweye rockfish for trawl/non-trawl allocations (8 percent, 92 percent, respectively) for each alternative ACL (Table 2 and Table 3) for analysis. Additional trawl/non-trawl allocations for yelloweye rockfish could be developed for the April meeting. • continuing the 95 percent trawl and 5 percent non-trawl allocation for big skate for 2019-2020 for analysis • continuing with the status quo 90 percent to trawl and 10 percent to non-trawl for longnose skate for 2019-2020 for analysis. • status quo trawl/non-trawl allocations for the shelf rockfish complex north of 40°10' N. lat. for analysis • status quo trawl/non-trawl allocations for the shelf rockfish complex south of 40° 10' N. lat. for analysis • status quo proportion of 39 percent trawl and 61 percent non-trawl for bocaccio rockfish south of 40° 10' N. lat. in 2019-2020 for analysis • status quo allocations for canary rockfish, based on the de facto 72 percent trawl and 28 percent non-trawl split for 2019-2020 for analysis
7	Allocations	Within Trawl	<p>Adopt preliminary two-year canary rockfish allocations for the shorebased individual fishing quota (IFQ) program and allocations (i.e., quotas) for the catcher-processor and mothership sectors. Implement Amendment 21 allocations for widow rockfish based ACLs</p> <ul style="list-style-type: none"> • adopt a within trawl allocation for canary rockfish of 946.9 mt (2017) and 887.8 mt (2018) to shorebased IFQ, 16 mt to the catch processor (CP), and 30 mt to the mothership (MS) for analysis

8	Set-Aside	Within Trawl, At-Sea	<p>Adopt preliminary set-asides, including those for darkblotched rockfish and Pacific ocean perch based on Amendment 21-3, to accommodate bycatch in the at-sea Pacific whiting fisheries</p> <ul style="list-style-type: none"> • the Council adopt the at-sea set-asides presented in Table 13 for 2019-2020 for analysis. • no set-asides for spiny dogfish or the Other Fish complex • a 2019 set aside of 25 mt for shortspine thornyhead to cover the recent maximum • continues to recommend the set-aside of 50 mt for sablefish but does note our concerns to the at-sea sector of the potential impact of exceeding the set-aside
9	HG or Shares	Within Non-Trawl	<p>Adopt preliminary 2-year within non-trawl HGs or shares for:</p> <ul style="list-style-type: none"> • using the status quo approach of a collective non-trawl allocation for all the non-trawl fisheries (i.e., no separate HGs by fishery) for cowcod for analysis • using status quo proportions for yelloweye rockfish from 2018 for the 2019-2020 within non-trawl HGs/Shares • the bocaccio rockfish within non-trawl allocations be based on status quo proportions • the 2019-2020 canary rockfish within non-trawl HGs/shares be based on status quo proportions for analysis • the status quo proportions for blackgill rockfish south of 40° 10' N. lat. of 60 percent LE and 40 percent OA for 2019-2020 for analysis • continuing with the 70-30 percent sharing of sablefish between LES and OAS for 2019-2020 for analysis • continuing using the status quo sharing arrangement used to set state-specific HGs for the nearshore rockfish complex north of 40° 10' N. lat.
			<p>Removal of lingcod size limit</p> <ul style="list-style-type: none"> • does not recommend that modifications or removal of the lingcod size limit be considered for the 2019-2020 biennium
10		Shorebased IFQ	<p>IFQ based on allocations, trip limits for non-IFQ species, trawl RCA configuration, non-trawl RCA (gear switching)</p> <ul style="list-style-type: none"> • status quo IFQ big skate trip limits for 2019-2020 for analysis, because the projected 2017 attainment is 88 percent

11	Non-Nearshore	<p>Routine adjustments to the non-trawl RCA configuration, trip limits, size limits</p> <ul style="list-style-type: none"> • status quo trip limits for the shelf rockfish complex and bocaccio, • status quo March-April closure (Period 2) for the shelf rockfish complex, bocaccio, and lingcod south of 40° 10' N. lat. • a March-April (Period 2) closure for canary rockfish south of 40° 10' N. lat. • the Council consider the following specific industry requests in addition to the routine trip limit adjustments for other non-nearshore species (e.g., sablefish, lingcod, and canary): <ul style="list-style-type: none"> ○ 500 lb. monthly for OA slope and darkblotched rockfish (North of 40° 10' N. lat.) ○ 50 lb. monthly for OA shortspine and longspine thornyheads for North of 40° 10' N. lat. • the Council consider moving the seaward non-trawl RCA boundary from 100 fathoms to 75 fathoms between 40°10' N. Lat. and 42° 00' N. Lat
12	Nearshore	<p>Routine adjustments to the non-trawl RCA configuration, trip limits, size limits</p> <ul style="list-style-type: none"> • status quo trip limits for the California nearshore fishery and period closure (March-April) for South of 40° 10' N. lat for analysis. • The GMT will examine other routine management measures for the Oregon nearshore fishery that attain harvest specifications
13	Treaty Fisheries	Routine adjustments to trip limits, size limits
14	WA Recreational	Routine changes to season structures, depth restrictions, and bag limits for the recreational groundfish fishery in all Washington subareas
15	OR Recreational	Routine changes to season structure, depth restrictions, bag limits, and size limits
16	CA Recreational	Routine changes to seasonal, depth, and bag limit measures across all five Management Areas