GROUNDFISH MANAGEMENT TEAM REPORT ON INSEASON ADJUSTMENTS INCLUDING WHITING YIELD SET-ASIDES FOR 2020 – 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 offer the following updates and recommendations.

Action items for 2019

There are no inseason action items being proposed for the remainder of 2019. The sablefish daily trip limit (DTL) fisheries, which the GMT closely monitors, are projected to be within their landings targets, based on landings data through November 16th. Open access north is projected to catch 400-430 mt of their 449 mt sablefish landings target. Limited entry north is tracking low, despite the inseason increase adopted in September and implemented by National Marine Fisheries Service (NMFS) in October 2019; they are projected to land ~200 mt of their 273 mt landings target. In total, the northern DTL fisheries are projected to underutilize ~100 mt of sablefish, which can help offset at-sea overages and decreases the risk of exceeding the annual catch limit (ACL) (described under the informational section). The Groundfish Advisory Subpanel (GAP) continues to report that poor prices and low processor demand are reducing participation and attainment.

Action items for 2020

There are two sections of action items for 2020. The first section pertains to set-asides and allocations. The second section pertains to trip limit requests. Estimates of potential economic impacts are provided using GMT projection models and the IO-PAC multipliers. Other numbers are sourced from PacFIN and the NORPAC databases.

Section 1: Set-asides and allocations for 2020

Pacific whiting set-aside

The objective of this action is to set aside the amount of whiting needed to account for incidental catch in research activities and the pink shrimp fishery. This amount is needed to establish the 2020 whiting fishery allocations, and will be deducted from the total allowable catch (TAC). **The GMT recommends maintaining a set-aside of 1,500 mt of whiting for research and pink shrimp in 2020**. The GMT expects that the 2020 whiting TAC could be similar to 2018 and 2019 TACs, since the whiting stock is estimated to be at similarly high abundances. Therefore, even though mortality was less than 500 mt in 2017 and 2018, adopting a 1,500 set-aside ensures that incidental catch is accounted for even in high whiting abundance years. Further, this set-aside amount remains a minute proportion of the whiting TAC and will not impact the targeted fisheries economically.

Raise the widow rockfish individual fishing quota (IFQ) allocation

The GMT received a request from a Newport, Oregon mid-water trawl fisherman to increase the 2020 widow rockfish individual fishing quota (IFQ) allocation via one of the following avenues: Alternative 1, reducing the research or IOA off-the-top set-asides; Alternative 2, reducing the at-sea set-aside; or Alternative 3, allowing IFQ to lease unused research allocation with the proceeds funding future research studies.

Reducing the research set-aside as described in Alternative 1 is not viable, because research activities caught 17.3 mt in 2017 and 12.6 mt in 2018, so will need their full set-aside to be accessible in 2020. Alternative 2 would reallocate a portion of the at-sea set-asides of widow rockfish to the shoreside IFQ fishery. However, widow rockfish in at-sea whiting fisheries will continue to be managed with hard-cap allocations until regulations are revised through Amendment 21-4, which is currently in the public comment stage of the proposed rulemaking, at which time they will be managed using soft-cap set-asides. Altering the current, formula-based widow rockfish allocations would require an extensive impacts analysis, because it could result in early closure of the at-sea whiting fisheries. NMFS determined it would also be outside the scope of routine inseason adjustments to waive notice and comment for revising the widow rockfish at-sea set-asides once the final A-21-4 rule becomes effective. Finally, Alternative 3 cannot be considered, because no mechanism exists to allow research studies to lease or sell their set-asides to commercial fisheries.

Annual widow rockfish mortality by the incidental/open access (IOA) sectors has been less than 0.6 mt since 2008, so is unlikely to reach the set-aside of 3.1 mt. The Council could therefore adopt Alternative 1 and request a reduction of the IOA set-aside to 0.6 mt for 2020 and allocate the remaining 2.5 mt to the fisheries. The existing allocation framework (i.e., trawl/non-trawl allocations) needs to be considered when reallocating unused off-the-top deductions. Although this Alternative is possible, the GMT sees little benefit in this action, because even a 100 percent transfer of 2.5 mt to IFQ would only be expected to net an additional $1,600 in ex-vessel revenue for the fleet.

Therefore, **the GMT does not recommend taking action to raise the 2020 widow rockfish IFQ allocation.** We note that the IFQ allocation will increase by 3,245 mt in the next two years, from 9,928 mt in 2019 to 13,173 mt in 2021, due in part to strong recent recruitments estimated in the 2019 update assessment.

Section 2: Trip limit requests for 2020

Each biennium, the Council sets pre-season trip limits to reach, but not exceed, the landings targets for the north of 36° N. lat. limited entry fixed gear (LEN) and open access (OAN) fisheries. These trip limits are frequently adjusted inseason, because price and participation can cause attainments to vary 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.

Sablefish daily trip limit

North of 36° N. lat.

In 2019, there were two inseason increases for OAN and one for LEN, which are reflected in the final 2019 trip limits in regulation, represented here as No Action for 2020 (Table 1). The 2019 inseason increases were possible because unanticipated low sablefish prices and less than projected fishery participation led to landing amounts half of those projected pre-season. If prices increase in 2020, then the GMT projects that OAN could exceed their landings target by 25 percent and LEN by 10 percent under No Action trip limits.

Table 1. No Action and Alternative 1 trip limits for the LEN, OAN, and OAS sablefish DTL fisheries.

Fishery	Alt	Jan-Feb	Mar-Apr	May-Jun	Jul-Aug	Sep-Oct	Nov -Dec
LEN	No Action	1,300 lb week, not to exceed 3,900 lbs / 2 months				1,700 lb/week, not to exceed 5,100 lbs /2 months	
	Alt 1	1,300 lb week, not to exceed 3,900 lbs / 2 months					
OAN	No Action	300 lb day; or one landing per week up to 1,200 lb, not to exceed 2,400 lb/2 months			300 lb day; or one landing per week up to 1,400 lb, not to exceed 2,800 lb/2 months	300 lb day; or one landing per week up to 1,500 lb, not to exceed 3,000 lb/2 months	
	Alt 1	300 lb day; or one landing per week up to 1,200 lb, not to exceed 2,400 lb/2 months					
OAS	No Action	300 lb day; or one landing per week up to 1,600 lb, not to exceed 3,200 lb/2 months			300 lb day; or one landing per week up to 1,600 lb, not to exceed 4,800 lb/2 months		
	Alt 1	300 lb day; or one landing per week up to 1,600 lb, not to exceed 4,800 lb/2 months					

The GMT therefore recommends Alternative 1 trip limits from Table 1 for LEN and OAN in 2020, which represent the pre-season 2019 trip limits and do not include the inseason increases. These represent the original amounts as adopted in the final rule for the 2019-20 biennial harvest specifications and management measures. The projected attainments of the landings targets for Alternative 1 are 67.7-93.1 percent for OAN and 84.1-91.2 percent for LEN.

South of 36° N. lat.

Effective July 2019, the Council increased the southern OA (OAS) bimonthly limits from 3,200 lbs to 4,800 lbs to provide additional opportunity for individuals in this low attainment sector, which typically catches less than 10 percent of the landing target. This increase is reflected in the 4,800 lbs bimonthly limit from July to December under the No Action Alternative for OAS (Table 1).

The Alternative 1 OAS trip limit would apply the 4,800 lbs bi-monthly trip to all periods, including January to June. Alternative 1 is expected to benefit individuals who target sablefish, and the projected attainment is 7-10 percent of the 2020 landings target. Vessels in this 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. **The GMT therefore recommends the Council adopt the Alternative 1 from Table 1 OAS trip limits (4,800lb bimonthly, all periods).**

LEFG and OA lingcod trip limits north of 42° N. lat.

Fixed gear fisheries value lingcod for their high price, but attainments have been low in recent years. Due to concerns with bycatch of yelloweye rockfish associated with lingcod catch, the Council has recommended, and NMFS has implemented, several catch controls for lingcod (e.g., the non-trawl Rockfish Conservation Area (RCA) and low lingcod trip limits). However, the Council has been able to gradually reduce these controls and increase lingcod trip limits each year since 2016, due to the improving yelloweye rockfish status and utilizing more accurate discard mortality rates. The GAP has supported a gradual phasing-in of higher lingcod trip limit to avoid sudden increases in OA effort, flooding the lingcod markets, and potentially increasing yelloweye bycatch.

During the 2019-20 biennial process, the GAP and the GMT also discussed setting 2020 lingcod limits higher than those in 2019 to continue this gradual increase (Agenda Item E.4 Supplemental REVISED Attachment 4 June 2018). However, the GAP indicated their preference was to initially set 2019 and 2020 limits at the same level and consider an increase to 2020 limits inseason, dependent on 2018 bycatch data since the 2019 estimates are on a one-year lag.

The Council uses more conservative LEFG and OA trip limits from 40°10′ - 42° N. lat. than north of 42° N. lat. to reflect stock assessment differences in the area. The lingcod harvest specifications and allocations are for the entire area north of 40°10′ N. lat., and are based on the more optimistic north of 42° N. lat. stock assessment (66 percent depletion in 2019 reflected in the 2019 catch-only projection) and a portion of the less optimistic stock assessment for the entire area south of 42° N. lat. (33.7 percent depletion in 2019 reflected in the 2019 catch-only projection).

The GMT received a request by Oregon nearshore fishermen to only raise the north of 42° N. lat. trip limits (Table 2). Although the request was only to increase the OA monthly trip limit from 900 lbs to 1,200 lbs, the GMT also proposes raising the LE bimonthly trip limit from 2,000 lbs to 2,600 lbs to prevent OA from having a higher limit than LE (Alternative 1). The same approach was used to set the LE bimonthly limit for 2019 (OA monthly limit x 2 + 200 lbs bimonthly) during the 2019-20 biennial process.

Lingcod is a low-attainment stock for the entire management area north of 40°10′ N. lat. (***Table 2***). Under No Action, total non-trawl mortality (537.8 mt) of lingcod is only projected to be 23.0 percent of the 2020 non-trawl allocation (2,345 mt). Total mortality of lingcod for Alternative 1 is only expected to increase by 9.3 mt, and total non-trawl attainment is projected to remain low at 23.3 percent. The GMT projects the increase in landings for Alternative 1 to be 8.9 mt, of which the associated projected economic benefits are an additional $49,000 in ex-vessel revenue paid to fishermen, and $94,000 in income to West Coast communities.

Table 2. LEFG and OA (FG) lingcod trip limit alternatives for north of 42° N. lat. in 2020 and projected attainment of the entire non-trawl allocation N 40°10′ N. lat. including recreational (Rec).

Trip limit alternative (lbs) (N of 42° N. lat.)			Non-trawl projected (mt)				Non-trawl allocation N of 40°10′ N. lat. (mt)
	OA (monthly)	LE (bimonthly)	FG N of 42° N. lat.	FG 40° 10′ - 42° N. lat.	Rec. N of 40°10′ a/	Total	
No Action	900	2,000	114.9	10.3	413	537.8	2,345
Alternative 1	1200	2,600	124.2	10.3	413	547.1	

a/ Estimated as the maximum total value from 2016-2018 in the Washington, Oregon, and California recreational fisheries.

The GMT projects that this alternative will increase yelloweye rockfish catch less than 0.1 mt for the non-nearshore fishery (i.e., LEFG and OA deeper than the non-trawl RCA) and also less than 0.1 mt extra for the Oregon nearshore fishery (i.e., LEFG and OA shallower than the non-trawl RCA). As shown in yelloweye rockfish scorecard below, both the non-nearshore and Oregon nearshore fisheries are projected to be below the yelloweye rockfish harvest goal and share, respectively, if Alternative 1 were adopted by the Council.

The GMT recommends the Council adopt the Alternative 1 OA and LEFG lingcod trip limits from Table 2 (1,200 lbs monthly and 2,600 lbs bimonthly, respectively, all periods) for north of 42° N. lat. in 2020.

Big skate trip limits in IFQ sector

Big skate catch in the IFQ sector is managed with coastwide, bi-monthly trip limits to an unofficial landings target. In 2020, this target is set at 388.5 mt, based on the 2020 trawl allocation of 429.5 mt, minus 41 mt to account for at-sea bycatch and shoreside IFQ discard mortality.

The trip limits for 2019-20 were originally based on the GMT's 2019-20 biennium harvest specifications analysis, which used relatively high 2016-2017 landings and projected that attainment would reach 98 percent of the landing target in 2020. However, the GMT now projects that the IFQ sector would only attain 34 percent (132 mt of the 388.5 mt landings target) in 2020 under No Action trip limits that are based on new 2019 data (Table 3). The GAP attributes the decline in the 2020 landings projection due to inconsistent markets and due to the retirement of fishermen who specialized in targeting big skate. While the number of trawlers targeting big skate appears to have decreased, those harvesters who continue this practice rely on big skate landings as an important part of their catch. This led the GAP to propose and the Council to recommend an inseason trip limit increase in June 2019 (Agenda Item I.7.a Supplemental GMT Report 1 June 2019) for periods 4-6, which carries forward for 2020 and is the No Action Alternative (Table 3).

The GAP requested that the GMT analyze a constant 70,000 lb bimonthly for all periods (Alternative 1), beginning in January 2020. Total projected landings for Alternative 1 (163 mt) represent 42 percent of the landings target (388.5 mt). The GMT predicts the economic benefits of Alternative 1 are an additional 31 mt of landings, resulting in $28,000 in ex-vessel revenue paid

to fishermen, and $67,000 in income to West Coast communities. **The GMT recommends the Council adopt the Alternative 1 big skate trip limits (70,000 lbs bimonthly for each period) from Table 3 for the IFQ sector in 2020**.

Table 3. Trip limit alternatives (lbs), projected landings (mt), and unofficial landings targets (mt) for big skate in the IFQ trawl fishery in 2020.

Alt	P1 (Jan-Feb)	P2 (Mar-Apr)	P3 (May-June)	P4 (July-Aug)	P5 (Sept - Oct)	P6 (Nov - Dec)	Projected landings (mt)	Landings target (mt)
No Action	5,000	25,000	30,000	70,000	20,000	20,000	132.0	388.5
Alternative 1	70,000	70,000	70,000	70,000	70,000	70,000	163.3	388.5

LEFG slope rockfish and darkblotched rockfish trip limits N of 40° 10′ N. lat.

A main objective of the No Action 4,000 lb bimonthly limit, which was set in the 2019-20 harvest specifications and management measures, was to allow fishermen the ability to retain their incidental catches of rockfishes while fishing for sablefish. The GAP requested an increase to 6,000 lbs bimonthly (Alternative 1; Table 4) for the slope and darkblotched rockfish trip limit based on input from a sablefish tier fisherman who claims he has to discard some of his incidental catches because the trip limits are too low. The GMT confirmed that there are rare instances where a vessel is catching the full trip limit while fishing for sablefish and could benefit from higher limits.

Table 4. Trip limit alternatives (lbs) for LEFG slope and darkblotched rockfish N. 40°10' N. lat.

Alternative	Jan-Feb	Mar-Apr	May-Jun	Jul-Aug	Oct-Sep	Nov-Dec
SQ	4,000	4,000	4,000	4,000	4,000	4,000
1	6,000	6,000	6,000	6,000	6,000	6,000

Since there are few instances of boats catching the current limit, the GMT projects that Alternative 1 would only increase fleetwide landings by 1.8 mt. As done in most trip limit models, this projection is based on the assumption that the same number of boats will participate, and that only the vessels catching near the lower current limit will catch the newer, higher limit. Total mortality would be expected to remain the same since fishermen would be allowed to land more fish instead of having to discard them and counted as dead. The non-trawl sectors are projected to be well within their allocations for both the coastwide non-trawl allocation of darkblotched rockfish (6.6 mt projected of the 39.1 mt allocation) and for the non-trawl allocation of slope rockfish north of 40°10′ N. lat. (81.5 mt projected of the 313.7 mt allocation).

The GMT recommends the Council select Alternative 1 for LEFG trip limits of slope rockfish and darkblotched rockfish in 2020 (6,000 lbs bimonthly each period; Table 4).

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

During the April 2019 meeting, inseason action was taken to increase commercial limits in response to CDFW's updated catch projections for lingcod south of 40°10′ N. lat. The updated catch projections were based on complete 2018 data, rather than the 2015-2016 data that was the most recent data available during 2019-2020 management measures analysis. The updated estimates suggested both LE and OA fisheries could receive increases despite the lower 2019-2020 harvest specifications that resulted from the 2017 stock assessment of lingcod south of 40°10′ N. lat., which indicated a less optimistic outlook for the southern portion of the stock compared to previous assessments.

The LE and OA trip limit adjustments adopted at the April meeting were implemented in June 2019, leaving period 1 at a much lower limit than periods 3-6 (note that period 2 is closed) for 2020 if no action is taken at this meeting. For LE, period 1 is 200 lbs bimonthly and periods 3-6 are 1,200 lbs bimonthly. For OA, period 1 is 300 lbs per month and 500 lbs monthly for periods 3-6. The major trip limit decrease from December to January could cause disruptions in markets and possible confusion with fishers. Current and proposed LE and OA trip limits are in Table 5 and projections are in Table 6. The price per pound on lingcod south 40°10′ N. lat. ranges from $0.85 - $9.00. The GMT projects the increase in landings for Alternative 1 to be 8.6 mt, of which the associated projected economic benefits can range from $16,000 - $ 171,000 in ex-vessel revenue paid to fishermen, and $31,500 - $334,00 in income to West Coast communities.

Table 5. Status quo and proposed LE and OA trip limits for lingcod south of 40°10′ N. lat.

Fishery	Alternative	Jan-Feb	Mar-Apr	May-Jun	Jul-Aug	Oct-Sep	Nov-Dec
LE	SQ	200 lb/ 2 months	CLOSED	1,200 lb/ 2 months			
LE	1	1,200 lb/ 2 months	CLOSED	1,200 lb/ 2 months			
OA	SQ	300 lb/ month	CLOSED	500 lb/ month			
OA	1	500 lb/ month	CLOSED	500 lb/ month			

Table 6. Status quo and proposed 2020 LE and OA trip limit landing projections for 40°10′ N. lat.

Projection/Allocation	SQ (mt)	Opt 1 (mt)
Commercial projection	50.2	58.8
Recreational projection	411	411
Non-trawl estimate	461.2	469.8
Non-trawl allocation	471.7	471.7
% of non-trawl allocation	98%	100%

The GMT recommends the Council adopt Alternative 1 for both LE and OA trip limits for lingcod south of 40° 10′ N. lat. from Table 5 (LE = 1,200 lbs bimonthly and OA = 500 lbs monthly; except closed in period 2 for both).

LEFG and OA minor nearshore rockfish trip limits between 42° and 40° 10′ N. lat.

At the March 2019 meeting, Council adopted LE and OA trip limit adjustments for minor nearshore rockfish in the area between 42° and 40°10′ N. lat. that increased from 1,200 lbs bimonthly to 1,500 lbs bimonthly. Note that this change did not pertain to black rockfish trip limits. The trip limit adjustments were implemented in early June 2019 and in place for Periods 3 to 6. The GAP has requested that for 2020 Period 1 and 2 limits be increased from 1,200 lbs bimonthly to 1,500 lbs bimonthly to match Periods 3 to 6 in order to help provide consistency and stability throughout the year, especially given the uncertainty around 2020 salmon and Dungeness crab seasons. Table 7 shows the current and proposed trip limits and ***Table 8*** shows associated projections. The price per pound ranges $1.25 - $8.00. The 0.3 mt increase from the period 1 and 2 adjustment could yield $800 - $5,400 in ex-vessel revenue for the north coast of California. This translates into approximately $1,600 - $10,500 of income to West Coast communities

The GMT recommends the Council adopt Alternative 1 for Minor Nearshore Rockfish between 42° and 40°10′ N. lat. in 2020 as shown in Table 7 (1,500 lbs bimonthly, all periods).

Table 7. Status quo and proposed 2020 trip limits (in bold text) for Minor Nearshore Rockfish between 42° and 40°10′ N. lat.

Alternative	Jan-Feb	Mar-Apr	May-Jun	Jul-Aug	Oct-Sep	Nov-Dec
Status Quo	8,500 lb / 2 months, no more than 1,200 lb of which may be species other than black rockfish		7,000 lb / 2 months, no more than 1,500 lb of which may be species other than black rockfish			
1	8,500 lb / 2 months, **no more than 1,500 lb** of which may be species other than black rockfish		7,000 lb / 2 months, no more than 1,500 lb of which may be species other than black rockfish			

Table 8. Status quo and proposed 2020 trip limit landing projections (in bold text) for Minor Nearshore Rockfish between 42° and 40°10′ N. lat. compared to the California share of the Minor Nearshore Rockfish north of 40°10′ N non-trawl allocation and the Minor Nearshore Rockfish north of 40°10′ N non-trawl allocation.

Projections/Allocation	SQ (mt)	Opt 1 (mt)
CA commercial projections	8	8.3
CA recreational projections	22.7	22.7
Total CA non-trawl estimate	30.7	31
CA share	36.6	37.9
% of CA share	84%	82%
Non-trawl allocation	79.3	79.3
% of non-trawl allocation	39%	39%

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

Also at the March 2019 meeting, Council adopted LE and OA trip limit adjustments for deeper nearshore rockfish south of 40°10' N. lat. to increase from 1,000 lbs bimonthly to 1,200 lbs bimonthly. The trip limit adjustments were implemented in early June 2019 for Periods 3 to 6. The GAP submitted a request to increase Period 1 from 1,000 lbs bimonthly to 1,200 lbs bimonthly to match Periods 3 to 6 to help provide consistency and stability throughout the year. Period 2 will remain closed. Table 9 provides the status quo and proposed 2020 trip limit for deeper nearshore rockfish and Table 10 provides the associated projections. The price per pound can range from $1.25 - $12.00. The 1.2 mt increase from the period 1 adjustment could yield $3,300 - $31,700 in ex-vessel revenue for California south of 40°10' N. lat. This translates into $6,400 - $62,120 of income to West Coast communities.

The GMT recommends the Council adopt Alternative 1 from Table 9 for Deeper Nearshore Rockfish south of 40°10′ N. lat. in 2020 (1,200 lbs bimonthly, all periods).

Table 9. Status quo and proposed 2020 trip limits (lbs) for Deeper Nearshore rockfish south of 40° 10′ N. lat.

Alternative	Jan-Feb	Mar-Apr	May-Jun	Jul-Aug	Oct-Sep	Nov-Dec
Status Quo	1,000	CLOSED	1,200	1,200	1,200	1,200
1	1,200	CLOSED	1,200	1,200	1,200	1,200

Table 10. Landing projections for status quo and proposed trip limits for Deeper Nearshore rockfish south of 40° 10' N. lat. compared to the Minor Nearshore Rockfish complex south 40°10' N. lat. non-trawl allocation.

Projections/Allocation	SQ (mt)	Opt 1 (mt)
Deeper Nearshore projection	55	56.2
Shallow Nearshore projection	55	55
Recreational projection	611.6	611.6
Non-trawl projection	721.6	722.8
Non-Trawl Allocation	1,158.90	1,158.90
% of Non-Trawl Allocation	62.30%	62.40%

LEFG bocaccio trip limits in the area between 40° 10′ and 34° 27′ N. lat.

During the June 2019 inseason agenda item, Council took action to increase the LEFG bocaccio trip limits in the area between 40° 10′ and 34° 27′ N. lat. from 1,000 lbs bimonthly to 1,500 lbs bimonthly. The higher trip limits were implemented in July for the remainder of 2019. Current 2019 landings are higher than the GMT's June inseason projections (Table 11), which is likely because more than twice as many LEFG vessels participated in this area during Periods 4 and 5 of 2019 than those same periods in 2018. It is difficult to determine if the number of LE participants increased in this area or if participants from south of 34° 27′ N. lat. began fishing in the area between 40° 10′ and 34° 27′ N. lat. The increase in effort has resulted in higher landings and a revised 2019 end of year projection of 18 mt. Due to the positive shift in effort, the GAP has requested to increase periods 1 through 3 trip limits in the area between 40° 10′ and 34° 27′ N. lat.

from 1,000 lbs bi-monthly to 1,500 lbs bimonthly to match periods 4 through 6. The increase in the trip limit for period 1 through 3 could provide more for growth in the LE fishery off central California where there has been low participation and attainment of bocaccio and other shelf rockfish species. The price per pound of bocaccio ranges from $0.40 - $8.50. The 2.2 mt increase for periods 1 - 3 could yield $1,940 - $42,450 in ex-vessel revenue for California south of 40°10' N. lat. This translates into $3,800 - $83,000 of income to West Coast communities.

Status quo and proposed 2020 LEFG bocaccio trip limits in the area between 40° 10′ and 34° 27′ N. lat. are provided in Table 12 and impact projections are in Table 13.

The GMT recommends the Council adopt Alternative 1 in Table 12 for LEFG bocaccio south of 40°10′ N. lat. in 2020 (1,500 lbs bimonthly, all periods).

Table 11. Increased 2019 landings (mt) for bocaccio south of 40° 10′ N. lat. from the LEFG fleet compared to 2018 landings (mt).

Year	Fishery	Area	Jan - Feb	Mar - Apr	May - Jun	Jul - Aug	Sep - Oct	Nov - Dec*	S of 40° 10′ N lat. Attain.
2018	LE	40°10' N. lat.-34°27' N. lat.	0	0.13	0	0.54	0.47	0.48	9.8
	LE	S 34°27' N. lat.	0.36	closed	0.42	0.5	0.81	0.58	
	OA	S 40°10' N. lat.	1.31	closed	0.88	1.08	1.22	0.99	
2019	LE	40°10' N. lat.-34°27' N. lat.	0.6	1.42	2.59	1.2	1.57	0.91	16.8
	LE	S 34°27' N. lat.	0.7	closed	0.85	0.69	1.08	0.31	
	OA	S 40°10' N. lat.	1	closed	0.78	1.22	1.21	0.59	

*Period 6 landings data is through 11/15/2019.

Table 12. Status quo and proposed 2020 LEFG bocaccio trip limits in the area between 40° 10′ and 34° 27′ N. lat.

Alternative	Fishery	Area	Jan - Feb	Mar - Apr	May - Jun	Jul - Aug	Sep - Oct	Nov - Dec
SQ	LE	40° 10' - 34° 27' N. lat.	1,000 lb/ 2 months			1,500 lb/ 2 months		
1	LE	40° 10' - 34° 27' N. lat.	1,500 lb/ 2 months					

Table 13. Landing projections for status quo and proposed 2020 LEFG bocaccio trip limits in the area between 40° 10′ and 34° 27′ N. lat. compared to the bocaccio south of 40° 10′ N. lat. non-trawl allocation.

Projections/Allocation	SQ	Opt 1
LE 40° 10' - 34° 27' N. lat.	8.2	10.4
LE S of 34° 27' N. lat.	3.9	3.9
OA S of 40° 10' N. lat.	4.7	4.7
Recreational impact	134	134
Non-trawl estimate	150.8	153
Non-trawl allocation	1,197.80	1,197.80
% of non-trawl allocation	12.60%	12.80%

Yelloweye rockfish Impacts south of 42° N lat.

The GMT Nearshore Model estimates the impacts to yelloweye rockfish from the nearshore fishery. The 2020 Nearshore fishery ACT for yelloweye rockfish is 6 mt, the California share for 2020 is 1.6 mt or 27 percent of the Nearshore Fishery ACT. The projected impact to yelloweye rockfish estimated from the Nearshore Model from the adjustments to the lingcod south of 40° 10 N. lat., bocaccio south of 40° 10 N. lat., Minor Nearshore Rockfish between 42° and 40°10′ N. lat., and Deeper Nearshore Rockfish trip limits, combined, is 0.6 mt.

Informational items for 2019

Shortbelly rockfish

631.2 mt (126 percent) of the 500 mt Annual Catch Limit (ACL) has been taken as of November 18, 2019. (PacFIN). Alternatives for 2020 are being discussed under Agenda Item H.4 and alternatives for the 2021-22 biennium are under H.6.

At-sea set-aside of sablefish N. of 36° N. lat.

The at-sea whiting fisheries have already caught 62.6 mt of their 50 mt combined set-aside for both catcher-processor (CP) and mothership (MS) as of November 14, 2019. The GMT projects the total at-sea bycatch of sablefish N. of 36° N. lat. in 2019 will be 73 mt, assuming their 2019 bycatch rates are constant and the fleet catches the remainder of their whiting allocations, including tribal reapportionment (Table 14).

Table 14. Sablefish N. of 36° N. lat. catch (mt) by at-sea and shoreside whiting fleets.

Year	At-sea			Shoreside IFQ	Total whiting
	CP	MS	Total		
2002	20.8	0.4	**21.1**	132.9	154.1
2003	16.8	0.3	**17.1**	40.3	57.4
2004	19.5	9.3	**28.8**	129.4	158.2
2005	13.0	2.1	**15.2**	22.4	37.6
2006	1.9	0.5	**2.4**	11.1	13.5
2007	3.1	0.1	**3.2**	9.0	12.2
2008	1.3	0.3	**1.6**	0.3	1.9
2009	0.2	0.0	**0.2**	49.2	49.3
2010	7.4	5.0	**12.4**	20.9	33.3
2011	2.9	2.0	**5.0**	30.4	35.4
2012	4.2	0.9	**5.1**	47.2	52.3
2013	9.7	3.0	**12.7**	0.7	13.4
2014	15.3	0.9	**16.2**	5.2	21.4
2015	9.7	1.9	**11.6**	7.0	18.6
2016	18.1	9.6	**27.7**	6.0	33.7
2017	67.5	85.8	**153.3**	98.5	251.8
2018	92.2	24.6	**116.8**	72.8	189.5
2019 current*	45.3	17.7	**63.0**	184.4	227.7
2019 predicted total	40.9	32.1	**73.0**	228.5	301.5

*Through November 14th

The GMT does not believe this potential at-sea overage will cause risk to the 2019 ACL for sablefish north of 36° N. lat. Total mortality in the entire shoreside IFQ fishery is tracking low in 2019 (Figure 1), which fishermen attribute to low prices and processors attribute to low demand from their main Japanese buyers who currently have large inventories of frozen product. The GMT projects that total mortality from the IFQ sector will be ~2,300 mt, which preserves 258 mt of their base allocation (without carryover) that is used as the reference point for staying below the ACL. The expected 258 mt IFQ residual can be used to accommodate the GMT's projected 23 mt at-sea overage without any changes to allocations or set-asides. In addition, the GMT projects that there will be an ~100 mt of unutilized DTL (LEFG and OA daily trip limit) quota that could further absorb at-sea overages (described in the 2019 section at the top).

The GMT encourages the at-sea whiting cooperatives to continue to avoid sablefish during the rest of 2019 as well as in 2020. As discussed at the 2019 sablefish Stock Assessment and Review (STAR) panel, the high at-sea bycatch in 2017 and 2018 may be attributable to a strong 2016-year class, which was caught as age-1 (in 2017) and age-2 (in 2018). The predicted record-high sablefish catch for all whiting sectors in 2019 (Table at-sea sable) could be due to a strong 2018-year class being caught in 2019 as age-1, which could continue in 2020 as age-2 are caught. The 2019 sablefish stock assessment team indicated that the wide uncertainty bounds in recruitment deviations suggest the possibility of an unrecognized strong 2018-year class.

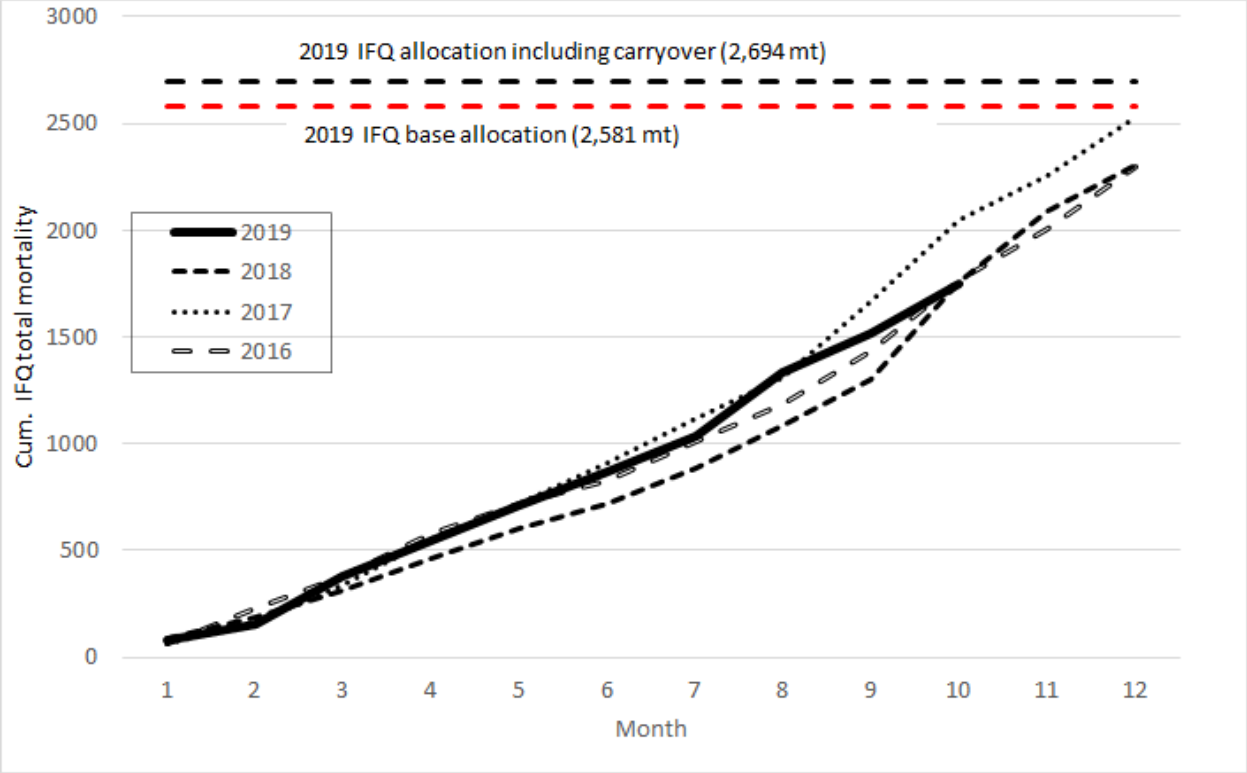

Figure 1. Annual cumulative IFQ total mortality of sablefish N. 36 (mt) for 2016 to 2019 in relation to the 2019 base IFQ allocation, which is the reference point for staying with the ACL.

At-sea bycatch of yellowtail rockfish

In June and September 2019, the GMT reported that the at-sea whiting had exceeded their 300 mt set-aside of yellowtail rockfish, but there would not be a risk of exceeding the trawl allocation nor the ACL, due to residual in the IFQ and non-trawl sectors. The GMT projects that final 2019 at-sea bycatch could be as high 550-600 mt, but this at-sea overage should not result in exceeding the total allocation, because the GMT projects the IFQ sector will underattain their own allocation by ~1,300 mt (i.e., ~3,000 mt expected of their 4,306 mt allocation).

Mothership bycatch of darkblotched rockfish

In September 2019, the GMT reported that MS had slightly exceeded their 15 mt set-aside of darkblotched rockfish, but there would not be a risk to the ACL nor trawl allocation since the IFQ sector attainments are typically 40 percent or less. Mothership catch continues to be slightly above the set-aside (15.6 mt), but the GMT projects their final total mortality could be 30-35 mt. This potential overage would not be problematic, since the GMT projects the IFQ sector will underattain their allocation by 377 mt (i.e, ~280 mt expected of their 658 mt allocation) which can accommodate the mothership overage.

Coho salmon

In September 2019, industry alerted the GMT that 158 coho salmon had been taken in the shoreside whiting fishery, which is managed under a 474 threshold that will trigger re-consultation if exceed

in any one calendar year. As of November 18, 2019, this number had increased to 168. However, the GMT did not believe there would be a risk to the threshold, as the at-sea sector has still taken less than 20 coho salmon at this time.

Nearshore rockfish complex north of 40° 10′ N. lat.

In September 2019, the Oregon Department of Fish and Wildlife reported they had exceeded the Oregon share of the nearshore rockfish complex even though retention in the recreational fishery was prohibited beginning August 23. The GMT determined there would not be a risk to the complex ACL due to projected residual from the Washington and California shares. Since the coastwide projection attainment is 68.7 mt of the 81.5 mt ACL (Table 15), the GMT again concludes there is not a risk to the ACL.

Table 15. 2019 estimated projected total impacts and catch limits by sector for the nearshore rockfish complex north of 40° 10′ N. lat.

Sector	Projected Impacts (mt)	Catch Limit b/ (mt)	Difference (mt)
WA Recreational	12.0	19.4	-7.4
OR Recreational a/	17.3	11.7	5.6
OR Commercial a/	11.9	12.3	-0.4
CA Recreational	21.0	38.0	-9.2
CA Commercial	8.0		
Total	**70.2**	**81.5**	**-11.4**

a/ Starting in 2019 in Oregon, blue/deacon rockfish are not part of the nearshore rockfish complex
b/ Managed with various state and federal allocation types designed to not exceed the complex ACL

Rebuilding species scorecard

Mortality of cowcod and yelloweye rockfish is expected to be under the ACL, fishery allocations, harvest guidelines (HGs), and shares for all sectors in 2019 and 2020. The new scorecards (Attachment 1 for 2019) and (Attachment 2 for 2020) incorporate updated projections for the nearshore and non-nearshore sectors that use new 2018 haul-level observer data.

Chinook salmon scorecard

Table 16. Inseason bycatch estimates by sector and threshold for Chinook salmon (number of fish) through November 18th, 2019.Table 16 shows the inseason bycatch estimates through November 18th, 2019 and thresholds from the 2017 Biological Opinion for Chinook salmon. Bycatch rates and amounts were low through mid-September, but increased in the following two months. The bycatch in the whiting sector increased more than threefold during that time period, with the CP sector increasing from approximately 350 to 2000 Chinook salmon, the MS sub-sector increasing from approximately 200 to 740, and the shoreside sector increasing from approximately 800 to 2100. Tribal catch did not change between mid-September and mid-November. Despite this increased bycatch, the GMT projects that the whiting threshold is unlikely to be reached or exceeded in 2019. Bycatch in the whiting sector remains below 50 percent of the threshold, with at most seven weeks of fishing remaining in the calendar year.

Table 16. Inseason bycatch estimates by sector and threshold for Chinook salmon (number of fish) through November 18th, 2019.

Sector	Sub-Sector	Catch To Date	Threshold	% of Threshold
Whiting	CP	2,058	11,000	44.6%
	MS	737		
	Shoreside	2,100		
	Tribal b/	13		
	Total	*4,908*		
Non-Whiting	Bottom Trawl	324	5,500	16.5%
	Midwater Trawl	85		
	Fixed Gear	500 a/		
	WA Rec			
	OR Rec + longleader			
	CA Rec			
	Total	*909*		
All groundfish fisheries		5,817	20,000	29.1%

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:

1) **maintaining a set-aside of 1,500 mt of whiting for research and pink shrimp in 2020**.
2) **<u>not</u> taking action to raise the 2020 widow rockfish IFQ allocation.**
3) **adopt Alternative 1 sablefish trip limits from Table 1 for LEN and OAN in 2020, which represent the pre-season 2019 trip limits and do not include the inseason increases.**
4) **adopt the Alternative 1 OAS trip limits from Table 1 (4,800 lbs bimonthly, all periods).**
5) **adopt the Alternative 1 OA and LEFG lingcod trip limits from Table 2 (1,200 lbs monthly and 2,600 lbs bimonthly, respectively, all periods) for north of 42° N. lat. in 2020.**
6) **adopt the Alternative 1 big skate trip limits (70,000 lbs bimonthly for each period) from Table 3 for the IFQ sector in 2020**.
7) **select Alternative 1 for LEFG trip limits of slope rockfish and darkblotched rockfish in 2020 from table 4 (6,000 lbs bimonthly each period).**
8) **adopt Alternative 1 for both LE and OA trip limits for lingcod south of 40° 10′ N. lat. from Table 5 (LE = 1,200 lbs bimonthly and OA = 500 lbs monthly; except closed in period 2 for both).**
9) **adopt Alternative 1 for Minor Nearshore Rockfish between 42° and 40°10′ N. lat. in 2020 as shown in Table 7 (1,500 lbs bimonthly, all periods).**
10) **adopt Alternative 1 from Table 9 for Deeper Nearshore Rockfish south of 40°10′ N. lat. in 2020 (1,200 lbs bimonthly, all periods)**.
11) **adopt Alternative 1 in Table 12 for LEFG bocaccio south of 40°10′ N. lat. in 2020 (1,500 lbs bimonthly, all periods)**.

Attachment 1. Allocations[a] and projected mortality impacts (mt) of rebuilding groundfish species for 2019.

Fishery	Cowcod b/		Yelloweye		
***Date*: November 18, 2019**	**Allocations a/**	**Projected Impacts**	**HG Allocations a/**	**ACT Allocations a/**	**Projected Impacts**
Off the Top Deductions	2.0	2.0	6.1	6.1	5.9
EFP b/	0.00	0.00	0.24	0.24	0.02
Research c/	2.0	2.0	2.9	2.9	**2.3**
Incidental OA d/	0.0	0.0	0.6	0.6	1.3
Tribal e/			2.3	2.3	2.3
Bottom Trawl					0.0
Troll					0.0
Fixed gear			2.3	2.3	2.3
mid-water					0.0
whiting					
Trawl Allocations	2.2	0.4	3.4		0.1
-SB Trawl	2.2	**0.4**	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	38.6	30.3	17.2
Non-Nearshore		1.0	2.0	1.6	0.8
LE FG					0.7
OA FG		**1.0**			0.1
Directed OA: Nearshore		0.0	6.0	4.7	2.2
Recreational Groundfish					
WA			10.0	7.8	**4.5**
OR			8.9	7.0	**4.5**
CA		2.2	11.6	9.1	**5.2**
TOTAL	6.0	3.6	48.1	36.4	23.2
Harvest Specification	**6.0**	**6.0**	**48**	**39**	39
Difference	0.0	2.4	-0.1	2.6	15.8
Percent of ACL	100.0%	60.2%	100.2%	93.3%	59.5%
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 the values in regulation. Projected impacts are the tribes best estimate of catch.

Attachment 2. Allocations[a] and projected mortality impacts (mt) of rebuilding groundfish species for 2020.

Fishery	Cowcod b/		Yelloweye		
***Date*: November 18, 2019**	**Allocations a/**	**Projected Impacts**	**HG Allocations a/**	**ACT Allocations a/**	**Projected Impacts**
Off the Top Deductions	2.0	2.0	6.1	6.1	6.3
EFP b/	0.00	0.00	0.24	0.24	0.02
Research c/	2.0	2.0	2.9	2.9	2.7
Incidental OA d/	0.0	0.0	0.6	0.6	1.3
Tribal e/			2.3	2.3	2.3
Bottom Trawl					0.0
Troll					0.0
Fixed gear			2.3	2.3	2.3
mid-water					0.0
whiting					
Trawl Allocations	2.2	0.2	3.4		0.1
-SB Trawl	2.2	0.2	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	1.6	39.5	30.3	15.7
Non-Nearshore		0.0	2.1	1.7	0.8
LE FG					0.7
OA FG					0.1
Directed OA: Nearshore		0.0	6.0	4.7	2.2
Recreational Groundfish					
WA			10.2	8.1	5.2
OR			9.1	7.2	4.2
CA		1.6	11.9	9.4	3.3
TOTAL	6.0	3.8	49.0	36.4	22.1
Harvest Specification	**6.0**	**6.0**	**49**	**43**	39
Difference	0.0	2.2	0.0	6.6	16.9
Percent of ACL	100.0%	63.3%	100.0%	84.6%	56.8%
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 the values in regulation. Projected impacts are the tribes best estimate of catch.