GROUNDFISH MANAGEMENT TEAM REPORT ON THE BLACKGILL AND SLOPE ROCKFISH REALLOCATION CONSIDERATION SOUTH OF 40° 10' N. LAT.

The Groundfish Management Team (GMT) discussed the blackgill rockfish south of 40° 10' N. lat. (hereafter referred to as blackgill S.) and slope rockfish south of 40° 10' N. lat. (hereafter referred to as Slope S.) reallocation at its February 2015 meeting in Seattle, Washington. Also, the team thanks Mr. John DeVore for his presentation of the Preliminary Draft Analytical Document (PDAD) prepared for the April Council meeting (Agenda Item E.7, Attachment 1). Comments and recommendations provided in this report are based on team discussions in February and April and the review of the preliminary draft analytical document (PDAD).

Background

Amendment 21 to the groundfish Fishery Management Plan (FMP) established long-term formal allocations, in support of Amendment 20 - the Trawl Rationalization Program. Under Amendment 21, the Slope S. fishery harvest guideline (HG) was formally allocated at 63 percent and 37 percent to the trawl and non-trawl sectors, respectively. However, while the non-trawl sector targets blackgill rockfish, it was allocated at the above percentages according to Amendment 21 because it is managed within the Slope S. complex. At that time, Amendment 21 analyses did not consider individual contributions to the complex, and WCGOP reports had incomplete information on mortality of component species to the complex. We now have a much better understanding of the relative catch among species within the Slope S. Since the decision for the Amendment 21 allocation was made, the new information indicates that this allocation split disproportionately allocated blackgill S. to the trawl and non-trawl fisheries relative to their actual catch histories. For example, the allocation amount of blackgill S. component for the non-trawl fisheries was low relative to that fisheries' historical catch.

Blackgill rockfish was last assessed in 2011[1], and the results of that stock assessment indicated that this species was at a 30 percent depletion level. As a result, the Council chose to manage blackgill S. utilizing an HG strategy beginning in 2013, even though it was part of the Slope S. complex. Conservative blackgill S. trip limits for both the limited entry and open access fixed-gear sectors were implemented in an attempt to keep the fishery mortality within the 2013 and 2014 non-trawl HGs of 44 and 45 mt, respectively. Total mortality estimates provided by the West Coast Groundfish Observer Program (WCGOP) mortality report for 2013 (Somers, et al., 2014) and 2014 PacFIN landings data indicate that those trip limits appear to have been effective in keeping allowable harvest within the specified non-trawl annual HGs. The 2013 WCGOP mortality report indicates that 18.2 mt were harvested by the non-trawl fixed-gear fishery (41 percent of the 44 mt non-trawl HG). The most recent 2014 PacFIN landings (table vdrfd) show that 24.1 mt were taken in the non-trawl sector (55 percent of the 45 mt non-trawl HG). It should be noted, however, that the PacFIN amount does not include the discard mortality estimates for these sectors.

While trip limits were implemented to reduce harvest of blackgill rockfish in the non-trawl fixed-gear fishery, no such management measures were designed for the individual fishing quota (IFQ)

[1] http://www.pcouncil.org/wp-content/uploads/Blackgill_2011_Assessment.pdf

trawl fishery to conserve blackgill S. as the fishery has IFQ for the entire Slope S. complex, not blackgill S. specifically. As such, an IFQ vessel hypothetically could take its entire Slope S. quota share, made up entirely of blackgill rockfish.

In addition, IFQ vessels (those with trawl permits) have the option to gear switch to either hook-and-line gear or traps. This option may result in an even higher proportion of blackgill S. catch by the IFQ fleet, relative to the catch of the other more trawl-dominant species within the Slope S. complex, if blackgill S. is not removed from the Slope S. complex. This is because fixed gear successfully catches blackgill S. (as does trawl), but is not as effective at catching some of the other Slope S. complex species. Hence, the IFQ gear switching provision may create an even larger conservation concern for blackgill S. than described in the previous paragraph, if blackgill S. is not removed from the Slope S. complex.

Blackgill S. and Slope S. complex landings were reviewed for 2000-2014. The year 2000 was chosen as a beginning of this historical review because that was the year that the slope rockfish complexes were first designated, with blackgill rockfish included in the Slope S. complex (*Federal Register* Vol. 64 No. 2, January 4, 2000). Annual landings from 2000-2014 are presented for blackgill S. and the Slope S. complex (excluding blackgill) in Table 1 and 2, respectively.

Table 1. Landings of blackgill S., in metric tons, by sector and year, and the annual percent for each sector per year, 2000-2014. Shaded cells represent trawl rationalization years. (Note: 2000, 2001, and 2014 are PacFIN data (table vdrfd) and 2002-2013 are WCGOP data; Data sources; PacFIN extracts on 3/17/2015 for 2000 and 2001 and 4/7/2015 for 2014, WCGOP data from GMMultiYrto2013_2014.12.01.xlsx).

Year	Trawl and % of Total	Non-trawl and % of Total	Total
2000	53.2 (61.8%)	32.9 (38.2%)	86.1
2001	90.1 (69.6%)	39.3 (30.4%)	129.4
2002	61.7 (44.2%)	77.9 (55.8%)	139.6
2003	54.4 (28.9%)	133.8 (71.1%)	188.2
2004	79.2 (52.9%)	70.4 (47.1%)	149.6
2005	51.5 (58.8%)	36.1 (41.2%)	87.6
2006	35.7 (38.3%)	57.4 (61.7%)	93.1
2007	25.5 (53.4%)	22.2 (46.6%)	47.7
2008	37.5 (50.9%)	36.2 (49.1%)	73.7
2009	53.2 (39.9%)	80.2 (60.1%)	133.4
2010	61.2 (40.4%)	90.1 (59.6%)	151.3
2011	15.9 (10.8%)	131.2 (89.2%)	147.1
2012	78.8 (41.2%)	112.4 (58.8%)	191.2
2013	53.5 (74.6%)	18.2 (25.4%)	71.7
2014	33.8 (58.4%)	24.1 (41.6%)	57.9
Total	**785.2 (44.9%)**	**962.4 (55.1%)**	**1,747.6**

From 2000 through 2014, blackgill S. annual landings averaged 52.4 mt for the trawl sector (44.9 percent of the total–landings for both sectors) and 64.2 mt for the non-trawl fixed gear sector (55.1 percent of the total landings for both sectors) (Table 1). Since the trawl fishery was rationalized, blackgill S. landings in the non-trawl sector increased in 2011 and 2012, but then decreased substantially compared to the first two years of the rationalization program. In the two years (2011-2012) prior to the implementation of the non-trawl trip limit reduction, landings averaged approximately 122 mt. When the trip limits were implemented, starting in 2013, that subsequent two-year average decreased to 21.2 mt, an 83 percent reduction from the previous two-year period. This included both the limited entry and open access non-trawl fixed gear sectors. This indicates that the conservative non-trawl trip limits appeared to be effective in keeping the total annual blackgill S. non-trawl sector mortality within the specified HGs. With this marked decrease, the combined total of blackgill S. for 2013 and 2014 by the non-trawl sectors was 42.3 mt (Table 1). This is 47.5 percent of the combined two-year allocation total of 89 mt. Lastly, the non-trawl fixed-gear fleet has few participants, despite the length of the coast south of 40° 10' N. lat. A combined (2013 + 2014) total of 85 vessels made blackgill S. landings, with only 15 of those achieving a two-year average $\geq$ 0.5 mt.

During the same 15-year time period, Slope S. complex landings for the trawl sector (excluding blackgill S.) averaged 94 mt (84.2 percent of the total landings for both sectors) and 18.0 mt for the non-trawl sector (15.8 percent of the total landings for both sectors; Table 2). During the four years since the implementation of trawl rationalization, these ratios have remained essentially the same, with a trawl sector four-year average of 85 percent, and a non-trawl sector average of 15 percent.

Table 2. Landings of the Slope S. complex excluding blackgill S. by sector and year, and the annual percent for each sector per year, 2000-2014. Shaded cells represent trawl rationalization years. (Note: 2000, 2001, and 2014 are PacFIN data (table vdrfd) and 2002-2013 are WCGOP data. Data sources; PacFIN extracts on 3/7/2015 for 2000 and 2001 and 4/07/2015 for 2014, WCGOP data from GMMultiYrto2013_2014.12.01.xlsx).

Year	Trawl and % of Total	Non-trawl and % of Total	Total
2000	134.5 (86.2%)	21.6 (13.8%)	156.1
2001	154.8 (88.0%)	21.2 (12.0%)	176.0
2002	281.4 (84.9%)	49.9 (15.1%)	331.3
2003	129.1 (82.3%)	27.2 (17.7%)	156.3
2004	157.0 (83.4%)	31.2 (16.6%)	188.2
2005	59.3 (74.0%)	20.8 (26.0%)	80.1
2006	54.7 (69.3%)	24.2 (30.7%)	78.9
2007	55.0 (80.4%)	13.4 (19.6%)	68.4
2008	99.6 (95.5%)	4.7 (4.5%)	104.3
2009	68.1 (84.3%)	12.7 (15.7%)	80.8
2010	18.1 (84.6%)	3.3 (15.4%)	21.4
2011	35.2 (90.3%)	3.8 (9.7%)	39.0
2012	39.7 (73.5%)	14.3 (26.5%)	54.0
2013	63.9 (83.5%)	12.6 (16.5%)	76.5
2014	59.8 (93.3%)	4.3 (6.7%)	64.1
Total	**1,410.2 (84.2%)**	**265.2 (15.8%)**	**1,675.4**

Purpose and Needs

As described in the PDAD, the GMT recognizes that there could be a conservation issue regarding blackgill rockfish and the need for measures that provide greater protection for blackgill S. There is a concern that if fishing pressure goes unchecked in any sector, the positive biomass and depletion trajectory predicted for blackgill S. under the 40-10 harvest control rule could be jeopardized. The GMT recognizes that the HG strategy for the non-trawl fixed-gear sectors and the associated trip limits implemented in 2013 appear to be effective in keeping total annual landings at or below the acceptable HG amounts. Given that, the concern then centers on

the trawl fleet's potential to harvest large amounts of blackgill S., because blackgill S. is managed as part of the overall Slope S. complex. This may be addressed by one of the allocation alternatives for blackgill S. and the remaining species in the Slope S. complex. Lastly, the GMT also acknowledges that a fair and equitable approach needs to be achieved for all sectors, not only for blackgill S. but also for the remainder of the Slope S. complex.

Proposed Action

From 2011-2014, it is estimated that blackgill rockfish composed 89 percent of the non-trawl fleet's harvest of all Slope S. complex. Despite the conservative trip limits in place since 2013, this high percentage of blackgill S. indicates that this species is an economic mainstay of this small fleet's Slope S. complex fishery. With this high proportional harvest of blackgill S., the question then arises if it is reasonable to consider removing blackgill rockfish from the Slope S. complex and supporting a different allocation percentage split between the trawl and non-trawl sectors for both blackgill S. and the remaining species in Slope S. complex.

Given the above, the GMT considered the two specific purposes of the actions analyzed:

> To reduce the risk of exceeding the blackgill S. overfishing limit (OFL) contribution and HG, projected in the 2011 assessment and established consistent with the default 40-10 ACL harvest control rule described in section 4.6 of the Groundfish FMP[2]. The need for the action is to provide greater resource protection for blackgill S. while minimizing disruption of current fisheries.
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> To ensure an equitable allocation of the harvestable surplus of blackgill S. and the Slope S. complex in the event blackgill rockfish is removed from the complex and managed with stock-specific harvest specifications.

(Note: The above is paraphrased from section 1.3 of the PDAD; the GMT agrees with the language in section 1.3 of the PDAD.)

Alternatives

At its February 2015 meeting, the GMT reviewed strawman alternatives that had been presented at the November 2014 Council Meeting (Agenda Item J.3.a Attachment 1, November 2014). After reviewing these alternatives, the GMT suggested additional alternatives be included in the PDAD analysis along with the No Action Alternative. The PDAD incorporated those suggestions by the GMT, and its analysis was structured around this revised suite of alternatives. Considering the above two purposes of the actions, central to the PDAD approach for possible reallocation of blackgill S. and the remaining species in the Slope S. complex is an examination of the possible impacts on the socioeconomic environment of IFQ permit holders and the potential for increased access to slope rockfish, shortspine thornyheads, and sablefish for the non-trawl fleet.

Trawl and Non-Trawl Allocation Alternatives

The alternatives analyzed in the PDAD, which contemplate removing blackgill S. from the Slope S. complex, estimate the trawl IFQ and the non-trawl sector allocation percentages for the

[2] http://www.pcouncil.org/wp-content/uploads/GF_FMP_FINAL_May2014.pdf

remaining species in the Slope S. complex and for blackgill S. The five action alternatives were structured on alternative historical sector catch histories. The structure and the rationale for that structure is summarized in Table 3. For the non-trawl sector for blackgill S., the GMT notes that for the five action alternatives allocation percentages range from a high of 64.4 percent (Alt. 2) to a low of 55.5 percent (Alt. 3). Roughly speaking, the five alternatives cluster around a high of approximately 60 percent. For Slope S. complex, the allocations for the trawl sector range from a high of 91.8 percent (Alt.4) to a low of 86.5 percent (Alt. 2). These allocation percentages cluster around approximately 90 percent. These ranges across alternatives are narrow, especially for Slope S. complex allocations (excluding blackgill S.). This suggests that fewer alternatives could be considered while achieving similar objectives.

Table 3 . Summary of the allocation alternatives analyzed in Agenda Item E.7, Attachment 1.

Alternative	Blackgill Removed from Complex ?	Allocation Basis (Sector Catch History Time Series)	Rationale for the Sector Catch History Time Series	Slope Rockfish		Blackgill Rockfish	
				Trawl Alloc. %	Non-Trawl Alloc. %	Trawl Alloc. %	Non-Trawl Alloc. %
No Action	N	A21 - 2003-2005 Total Catch	The longest sector catch history using total mortality estimates available at the time for the A21 analysis.	63.0%	37.0%	NA	NA
Alt. 1	Y	2003-2013 Total Catch	1) RCAs fully implemented in 2003, thus causing effort shifts to the continental slope seaward of the RCAs; 2) better estimates of total catch by sector are available after full implementation of the WCGOP in 2003; 3) 2013 is the final year of fully reconciled total catches available for this analysis.	91.0%	9.0%	41.0%	59.0%
Alt. 2	Y	2011-2013 Total Catch	Explore the effect of trawl rationalization, implemented in 2011.	86.5%	13.5%	35.6%	64.4%
Alt. 3	Y	2003-2005 Total Catch	Compare the effect of removing blackgill and reallocating to sectors using the A21 catch history time series.	91.6%	8.4%	44.5%	55.5%
Alt. 4	Y	2003-2010 Total Catch	Extend the time series of fully reconciled sector total catch histories up to the year prior to implementation of the trawl rationalization program.	91.8%	8.2%	43.9%	56.1%
Alt. 5	Y	2003-2012 Total Catch	Extend the time series of fully reconciled sector total catch shares up to the year prior to implementation of restrictive cumulative landing limits of blackgill rockfish for the non-trawl sectors.	90.7%	9.3%	39.4%	60.6%

The analysis provided in the PDAD concluded that there would be no adverse impact to either the physical or biological environment for any of the alternatives. As stated in the PDAD, the anticipated impacts of this proposed action are largely socioeconomic. An in-depth socioeconomic analysis will be completed in the next analysis that will be prepared to assist the Council's decision on a final preferred alternative. To that end, the GMT notes that the socioeconomic impacts are best characterized by considering the two evaluation criteria identified in the PDAD. They are: 1) the utilization of blackgill S. and the Slope S. complex by each sector and 2) a comparison of historical catches of these species by trawl and non-trawl sectors to the amount available to these sectors in 2015 under the alternatives. These two analyses have been provided in the PDAD, with the result that all five alternatives provide a greater blackgill S. percentage to the non-trawl sectors compared to the No Action Alternative. Additionally all five alternatives provide the trawl sector a higher percentage of the remaining species in the Slope S. complex (with blackgill rockfish removed) compared to the No Action Alternative.

Quota Share Reallocation Sub-options

When considering the impacts on the limited entry trawl permits that would be eligible to receive blackgill S. quota share (QS), three sub-options, which vary the allocation of QS from the catch histories of those permits removed from the fishery in the permit buy-back program, were analyzed. The three sub-options for sharing buyback QS are: 1) equal sharing of 100 percent of the QS, 2) equal sharing of 50 percent of the QS, and 3) no sharing of the QS. Of these three sub-options, the third yielded the greatest individual blackgill allocations to those IFQ permits with high catch histories of blackgill at the expense of those with little or no catch history of blackgill.

Additional Analyses Needed and Other Issues

The GMT recommends the following issues/analyses be addressed in the anticipated socioeconomic analysis:

- Analyze community impacts;
- Explore the effect of IFQ gear switching;
- Consider scheduling a Groundfish Allocation Committee meeting;
- Explore alternative trawl management strategies to conserve blackgill under the No Action Alternative (e.g., RCA boundary adjustments or more discrete "hot spot" area-depth closures); and
- Add or scope an alternative that pulls blackgill S. from the Slope S. complex but applies the original Amendment 21 allocation structure, per existing regulations at 660.140(c)(2)(vii)(B). By addressing this point, federal regulations that identify such a situation are adhered to.

Knowing that the Council action is to pare down the number of alternatives and choose a preferred alternative for further detailed analysis, the GMT recommends maintaining the buyback QS sub-options to better explore the impacts of a blackgill allocation at the IFQ permit level, because some IFQ permits would have little or no blackgill S. QS without a buy-back QS, which could be a serious constraint. The GMT recommends the Council plan to decide a final preferred alternative no later than November 2015 to prevent complicating the 2017 and beyond harvest specifications analyses.

References

Agenda Item E.7, Attachment 1: Preliminary Draft Analytical Document: Allocation of Harvest Opportunity Between Sectors of the Pacific Coast Groundfish Fishery of Blackgill Rockfish and Other Species Managed in the Slope Rockfish Complex South of 40°10' N. Latitude, April 2015.

Somers, K.A., M. Bellman, J. Jannot, N. Riley, and J. McVeigh. 2014. Estimated discard and catch of groundfish species in the 2013 U.S. west coast fisheries. NOAA Fisheries, NWFSC Observer Program, 2725 Montlake Blvd E., Seattle, WA 98112.

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