

Agenda Item G.4.a
Supplemental NMFS Presentation 1
April 2019



NOAA
FISHERIES

West Coast Region

Updates to Blackgill – Slope Rockfish Complex Reallocation and Accumulation Limits (Amendment 26)

Agenda Item G.4
April 2019

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Summary of Amendment 26 Alternatives

Alternative	Blackgill Removed from Complex?	Allocation Basis	Slope Rockfish S		Blackgill Rockfish S	
			LE Trawl Alloc. %	Non-Trawl Alloc. %	LE Trawl Alloc. %	Non-Trawl Alloc. %
No Action	N	A21 - 2003-2005 Total Catch	63.0%	37.0%	NA	NA
Alt. 1 (FPA)	Y	2003-2013 Total Catch	91.0%	9.0%	41.0%	59.0%
Alt. 2	Y	2011-2013 Total Catch	86.5%	13.5%	35.6%	64.4%

Overview of Analysis

- Focus on the biological and socioeconomic impacts
- Expect minimal habitat impacts (see draft EA)
- For socioeconomic, we focus on the 2020 fishery
 - First year that measures could be implemented

Biological Impact Considerations

- Conservation concerns are less urgent in terms of an immediate risk of overfishing.
- 2017 update assessment for blackgill rockfish – improved stock abundance
- Risk of exceeding component OFL continues to be low.

Table 3. Mortality of blackgill rockfish in all sectors (including set-asides) south of 40°10' N latitude along with its ACL/OY and OFL contributions to the southern Slope Rockfish complex.

Year	Mortality (mt)	ACL/OY Contribution (mt)	OFL Contribution (mt)	Percent Attainment	
				ACL/OY Contribution	OFL Contribution
2003	192.3	306.0	343.0	63%	56%
2004	152.5	306.0	343.0	50%	44%
2005	88.6	306.0	343.0	29%	26%
2006	95.2	306.0	343.0	31%	28%
2007	48.5	292.0	292.0	17%	17%
2008	74.9	292.0	292.0	26%	26%
2009	137.9	282.0	282.0	49%	49%
2010	153.1	282.0	282.0	54%	54%
2011	151.4	267.0	279.0	57%	54%
2012	196.1	263.0	275.0	75%	71%
2013	74.3	106.0	130.0	70%	57%
2014	72.7	110.0	134.0	66%	54%
2015	42.3	120.2	137.0	35%	31%
2016	36.7	123.0	140.0	30%	26%
2017	49.1	125.7	143.0	39%	34%

Biological Impact Considerations

- If overfished – expect rebuilding plan for many years
 - Slow growth and late maturation
 - SAFE: “...*high potential vulnerability to overfishing*”
- Management uncertainty
 - Will IFQ vessels target blackgill?
- National Standard 1
 - Removal from the complex appears consistent

Socioeconomic Impact Considerations

	Southern Slope Rockfish Complex		Blackgill Rockfish south	
	Trawl allocation	Non-trawl allocation	Trawl allocation	Non-trawl allocation
Amendment 21 Allocation (status quo)	63 percent (455.1 mt)	37 percent (267.4 mt)	Not Allocated* (blackgill rockfish part of complex)	
Amendment 26 Allocation (FPA)	91 percent (513.1 mt)	9 percent (50.7 mt)	41 percent (65.2 mt)	59 percent (93.8 mt) <u>Further apportioned limited entry:</u> 60 percent (56.3 mt) open access: 40 percent (37.5 mt)
Amendment 26 Allocation (Alternative 2)	86.5 percent (487.7 mt)	13.5 percent (76.1 mt)	35.6 percent (56.6 mt)	64.4 percent (102.4 mt) <u>Further apportioned limited entry:</u> 60 percent (61.4 mt) open access: 40 percent (41.0 mt)

Table 4. Southern Slope rockfish complex and blackgill rockfish south of 40°10' N latitude allocations under 2020 Harvest Specifications

Current Tools to Control Blackgill Catch

- Non-trawl - effectively controlled with cumulative landing limits since 2013
- Trawl - few measures available if in complex
 - RCA lines – Deepest is 250 fm
 - Seasonal area closures to the fishery
 - Voluntary measures

Revised Figure 1. Box plots (25th, 50th and 75th quartiles) showing blackgill rockfish catch (lb) by depth (fathoms) for IFQ bottom trawl south of 40°10' N latitude during 2011 to 2017.

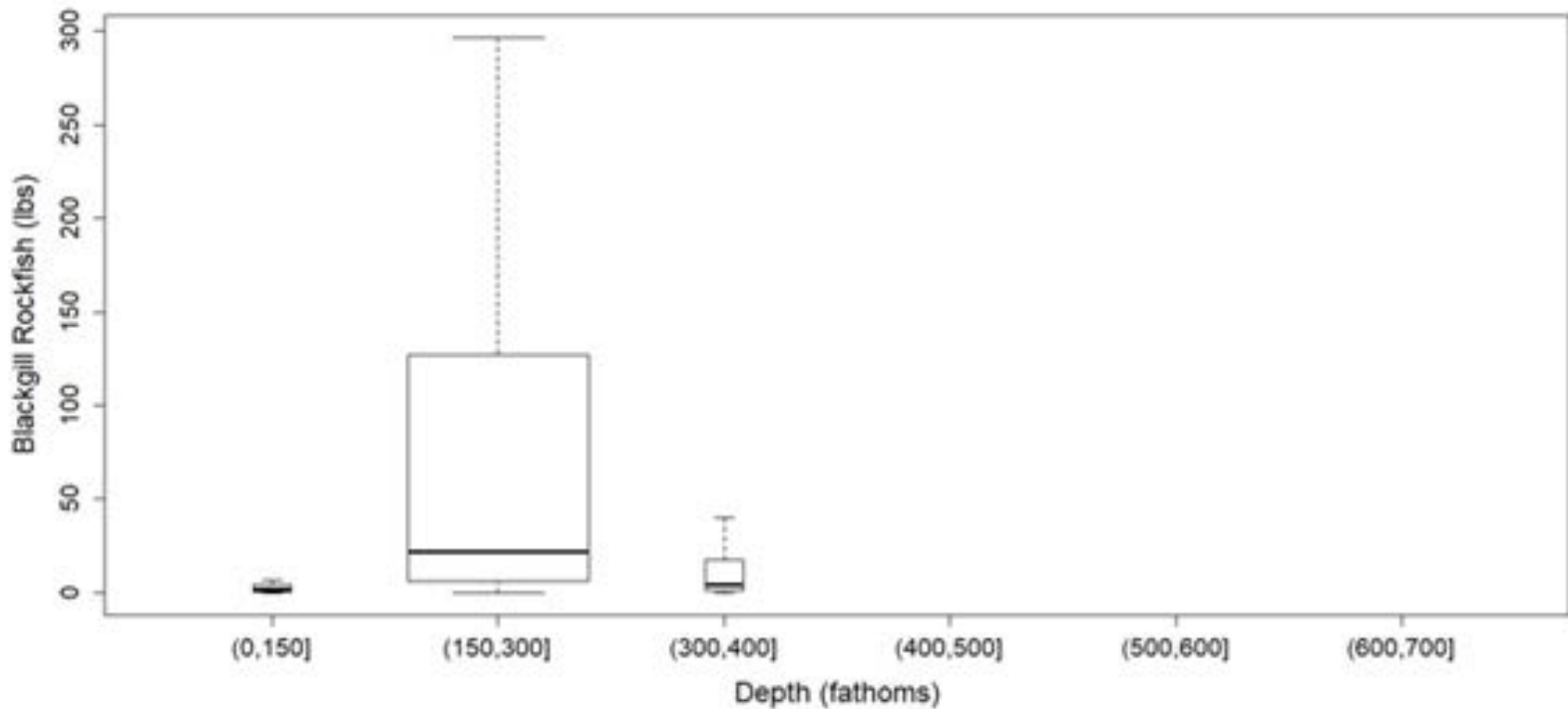
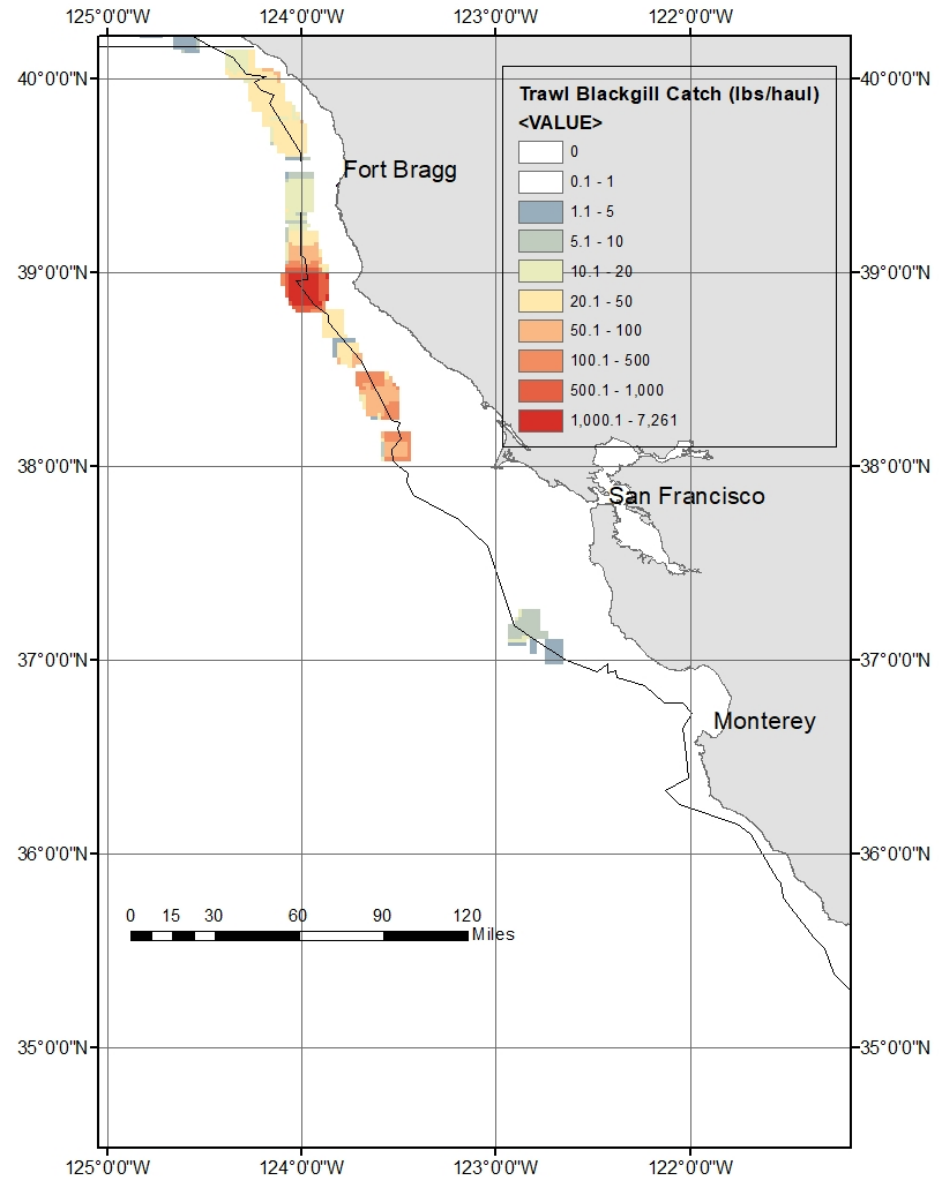


Figure 2. Observer data (2011 to 2017 combined) within 8 nm x 8 nm blocks showing IFQ bottom trawl catch rate for blackgill rockfish (lb/haul) south of 40°10' N latitude, when encountered.



Trip Limits (Non-trawl)

Table 5. Limited Entry trip limits - Amendment 26 - 2020 and beyond

Fishery	Jan-Feb	Mar-Apr	May-Jun	July-Aug	Sept-Oct	Nov-Dec
Blackgill rockfish South	1,375 lb/ 2 months			1,600 lb / 2 months		
Minor Slope Rockfish South and Darkblotched Rockfish South	40,000 lb/ 2 months			40,000 lb/ 2 months		

Table 6. Open Access trip limits - Amendment 26 - 2020 and beyond

Fishery	Jan-Feb	Mar-Apr	May-Jun	July-Aug	Sept-Oct	Nov-Dec
Blackgill rockfish South	475 lb/ 2 months			550 lb / 2 months		
Minor Slope Rockfish South and Darkblotched rockfish South	10,000 lb/ 2 months			10,000 lb / 2 months		

Impacts of Status Quo - Non-trawl and Trawl

- Amendment 21 southern Slope Rockfish complex sector allocations would apply
 - *63 percent trawl and 37 percent non-trawl*

Non-trawl

- Blackgill effectively controlled through cumulative landings limits since 2013

Trawl

- Few measures to control blackgill catch

Impact of Amendment 26 - IFQ vessels

Table 7. Blackgill rockfish mortality and Amendment 26 allocation (a retrospective application) south of 40°10' N latitude for the IFQ trawl fishery (including IFQ fixed gear).

Year	Retrospective Amendment 26 Blackgill RF trawl allocation (mt)	Blackgill RF trawl mortality (including IFQ fixed gear)	Percent attainment
2011	81.9	16.0	20%
2012	81.1	79.7	98%
2013	43.5	54.9	126%
2014	45.1	38.3	85%
2015	46.7	19.5	42%
2016	48.0	11.7	24%
2017	49.3	20.2	41%

Table 8. Southern Slope Rockfish (excluding blackgill rockfish) mortality and Amendment 26 allocation (a retrospective application) south of 40°10' N latitude for the IFQ trawl fishery (including IFQ fixed gear).

Year	Retrospective Amendment 26 Slope RF trawl allocation, excluding blackgill RF (mt)	Slope RF trawl mortality, excluding blackgill RF (mt)	Percent attainment
2011	363.4	36.1	10%
2012	365.2	43.1	12%
2013	446.8	61.7	14%
2014	446.8	61.7	14%
2015	508.7	49.8	10%
2016	507.8	38.1	8%
2017	515.6	40.1	8%

Impact of Amendment 26 - IFQ vessels

Table 9. IFQ trawl landings of selected species south of 40°10' N latitude in 2017 (all IFQ vessels)

Species	Pounds	Ex-vessel revenue (\$)	Calculated \$/lb
Blackgill rockfish	42,943	26,358	0.61
Minor slope rockfish	83,379	56,038	0.67
Dover sole	647,822	286,280	0.44
Longspine thornyhead	444,976	259,443	0.58
Petrale sole	421,756	477,712	1.13
Sablefish	374,282	736,691	1.97
Shortspine thornyhead	145,306	166,187	1.14

Table 10. Number of vessels making trawl caught IFQ landing of southern blackgill rockfish (south of 40°10' N latitude) including ex-vessel value for blackgill and all other species in the landing.

Year	Vessels	Days	Exvessel Value		Percent	Average Revenue Per Vessel	
			Blackgill	Total	Blackgill	Blackgill	Other Revenue
2011	11	113	22,600	2,812,053	0.8%	2,055	255,641
2012	10	146	123,163	2,745,647	4.5%	12,316	274,565
2013	11	147	66,599	2,802,995	2.4%	6,054	254,818
2014	12	123	51,337	2,399,547	2.1%	4,278	199,962
2015	9	87	29,082	2,283,992	1.3%	3,231	253,777
2016	6	55	14,277	1,409,210	1.0%	2,380	234,868
2017	8	39	34,068	992,088	3.4%	4,258	124,011

[Internal Ref: Blackgill_QPLm_Analysis_Aug_2018.xlsx; Trips - Rev - 04 - Blackgill]

Impact of Amendment 26 - IFQ vessels

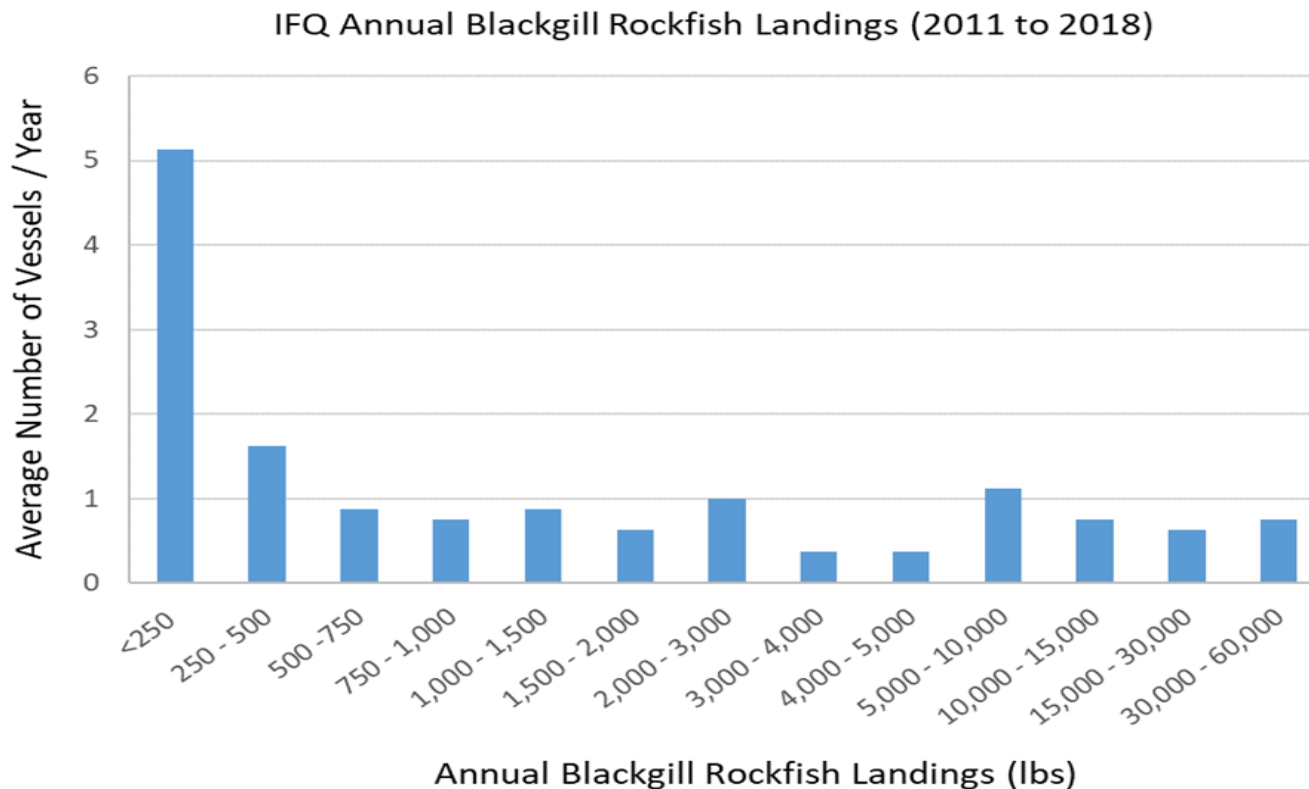
- Blackgill rockfish and complex landings are concentrated north of Santa Barbara
 - Most in Fort Bragg and Morro Bay
- 131 entities own QS of southern Slope Rockfish complex
- On average, 15 IFQ vessels landed blackgill rockfish south of 40°10' N lat. from 2011 to 2018 (Table 11)

Impact of Amendment 26 - IFQ vessels

- Blackgill rockfish might be readily available on the market for most IFQ vessels who need additional QP
 - *QP trading under IFQ may be uncertain*
- Should blackgill rockfish become constraining...
 - May be able to avoid blackgill hot spots
 - Target sablefish, Dover sole, and thornyheads (>300 fm)
 - Target shallow-water rockfish and flatfish (<150 fm)

Impact of Amendment 26 - IFQ vessels

Figure 3. Average annual frequency distribution of vessels landing blackgill rockfish south of 40°10' N latitude for the period 2011 to 2018 (IFQ fixed gear and trawl gear combined).



Impact of Amendment 26 - IFQ vessels

Table 12. Trawl Quota Share permit owners receiving certain levels of Quota Pounds of Blackgill Rockfish south of 40°10' N latitude in 2020 under Amendment 26 Alternatives.

Quota Pounds of Blackgill Rockfish South received	Number of Quota Share permit owners	
	Amendment 26 - FPA	Amendment 26 - Alt 2
0	45	45
1 to 200	6	6
201 to 300	69	71
301 to 500	8	15
501 to 1000	18	14
1001 to 2000	14	9
2001 to 4000	7	11
4001 to 7000	6	2
7001 to 9000	3	3

Impact of Amendment 26 - IFQ vessels

Table 13. Trawl Quota Share permit owners receiving certain levels of Quota Pounds of Minor Slope Rockfish south of 40°10' N latitude in 2020 under Amendment 26 Alternatives.

Quota Pounds of Minor Slope Rockfish South received	Number of Quota Share permit owners	
	Amendment 26 - FPA	Amendment 26 - Alt 2
0	45	45
1 to 1000	4	4
1,001 to 3,000	75	76
3,001 to 5,000	14	14
5,001 to 7,000	6	8
7,001 to 10,000	9	11
10,001 to 20,000	7	4
20,001 to 40,000	11	12
40,001 to 70,000	5	4

Summary - IFQ vessels

- Amendment 26 FPA allocations of blackgill rockfish and the complex would not likely constrain the IFQ trawl fleet as a whole.
- In most cases, QS holders would be able to purchase or trade QS or QP to balance their accounts to match their particular fishery strategy. QP trading under IFQ may be uncertain.
- Should blackgill rockfish become constraining, lightning strikes could be minimized by fishing deeper than 300 fm or shallower than 150 fm.

Impact of Amendment 26 - Non-trawl (LE & OA)

Table 14. Blackgill rockfish mortality and Amendment 26 allocations (a retrospective application) south of 40°10' N latitude for non-trawl fisheries.

Year	Retrospective Amendment 26 Blackgill RF non-trawl allocation (mt)	Blackgill RF non-trawl mortality (mt)	Percent attainment
2011	117.8	135.1	115%
2012	116.6	116.1	100%
2013	62.5	18.9	30%
2014	64.9	33.1	51%
2015	67.3	21.7	32%
2016	69.0	24.3	35%
2017	70.9	27.5	39%

Impact of Amendment 26 - Non-trawl (LE & OA)

Table 15. Blackgill rockfish mortality and Amendment 26 allocations (a retrospective application) south of 40°10' N latitude apportioned between non-trawl Open Access and Limited Entry fisheries.

Year	Non-Trawl Open Access (OA)			Non-Trawl Limited Entry (LE)		
	Retrospective Amendment 26 Blackgill RF allocation apportionment (mt)	Blackgill RF mortality (mt)	Percent attainment	Retrospective Amendment 26 Blackgill RF allocation apportionment (mt)	Blackgill RF mortality (mt)	Percent attainment
2011	47.1	50.9	108%	70.7	84.2	119%
2012	46.7	62.4	134%	70.0	53.7	77%
2013	25.0	5.0	20%	37.5	13.9	37%
2014	26.0	5.0	19%	38.9	28.2	72%
2015	26.9	3.3	12%	40.4	18.4	46%
2016	27.6	2.3	8%	41.4	21.9	53%
2017	28.4	3.0	11%	42.5	24.4	57%

Year	Retrospective Amendment 26 Slope RF non-trawl allocation, excluding blackgill RF (mt)	Slope RF non-trawl mortality, excluding blackgill RF (mt)	Percent attainment
2011	35.9	4.1	11%
2012	36.1	14.3	40%
2013	44.2	4.2	9%
2014	44.2	4.4	10%
2015	50.3	6.1	12%
2016	50.2	3.6	7%
2017	51.0	5.0	10%

Table 16. Slope Rockfish complex (excluding blackgill rockfish) mortality and Amendment 26 allocation (a retrospective application) south of 40°10' N latitude for non-trawl fisheries.

Table 17. Slope rockfish mortality (excluding blackgill rockfish) and Amendment 26 allocations (a retrospective application) south of 40°10' N latitude apportioned between non-trawl Open Access and Limited Entry fisheries

Year	Non-Trawl Open Access (OA)			Non-Trawl Limited Entry (LE)		
	Retrospective Amendment 26 Slope RF allocation apportionment, excluding blackgill RF (mt)	Slope RF mortality, excluding blackgill RF (mt)	Percent attainment	Retrospective Amendment 26 Slope RF allocation apportionment, excluding blackgill RF (mt)	Slope RF mortality, excluding blackgill RF (mt)	Percent attainment
2011	14.4	0.5	3%	21.5	3.5	16%
2012	14.4	1.4	10%	21.7	12.9	59%
2013	17.7	0.4	2%	26.5	3.8	14%
2014	17.7	0.6	3%	26.5	3.8	14%
2015	20.1	0.9	4%	30.2	5.2	17%
2016	20.1	0.2	1%	30.1	3.4	11%
2017	20.4	0.6	3%	30.6	4.4	14%

Impact of Amendment 26 - Non-trawl (LE & OA)

- Landings are spread more evenly among port areas than IFQ landings, but tend to be greater toward the south.
 - Mostly in Morro Bay, San Diego and Santa Barbara
- The 2017 ex-vessel value of the southern Slope Rockfish complex for non-nearshore non-trawl sectors
 - Limited Entry = \$103,700
 - Blackgill Rockfish = \$98,500
 - Other Slope Rockfish = \$5,200
 - Open Access = \$8,800
 - Blackgill Rockfish = \$7,900
 - Other Slope Rockfish = \$900

Summary - Non-trawl (LE & OA)

- Amendment 26 FPA allocations of blackgill rockfish and the complex would not likely constrain the non-trawl fleet.
- Since trip limits for non-trawl were implemented in 2013, blackgill rockfish mortality has been approximately 50 percent of the non-trawl allocation.
- Catch of complex (excluding blackgill rockfish) would have remained far below the retrospective Amendment 26 FPA allocation both before and after trip limits were imposed.

Next Steps - *April 2019 Council Meeting*

- Reaffirm Amendment 26 FPA for stock/complex restructuring and re-allocation
- Select FPA for blackgill rockfish annual vessel QP limits
- Consider scheduling future consideration of adjustments to blackgill rockfish and/or complex non-trawl trip limits for 2020.

Timing of Rulemaking and Implementation

- Council FPA: April 2019
- Proposed Rule: June 2019
- Final Rule: October 2019
- Target Implementation: January 1, 2020

VESSEL QP LIMITS (BLACKGILL)

- **Process History**
- **Alternatives**
- **Analysis**

PROCESS HISTORY

- March 2018 - Vessel QP limits for blackgill included in catch share review follow-on package
- September 2018 – Council
 - Adopted Purpose and Need Statement (G.4 Att 2, p. 4)
 - Adopted Range of Alternatives (G.4 Att 2, p. 9)
 - Adopted a PPA
 - Deferred Final Action to take up with A-26 Reconsideration
(removed issue from follow-on package)



ALTERNATIVES

Should the blackgill vessel QP limit be raised?

- Adopt final preferred alternative
 - Alternative 1 (No Action): 9%
 - Alternative 2: 12%
 - **Alternative 3: 20% (PPA)**
 - Alternative 4: 30%



ANALYSIS

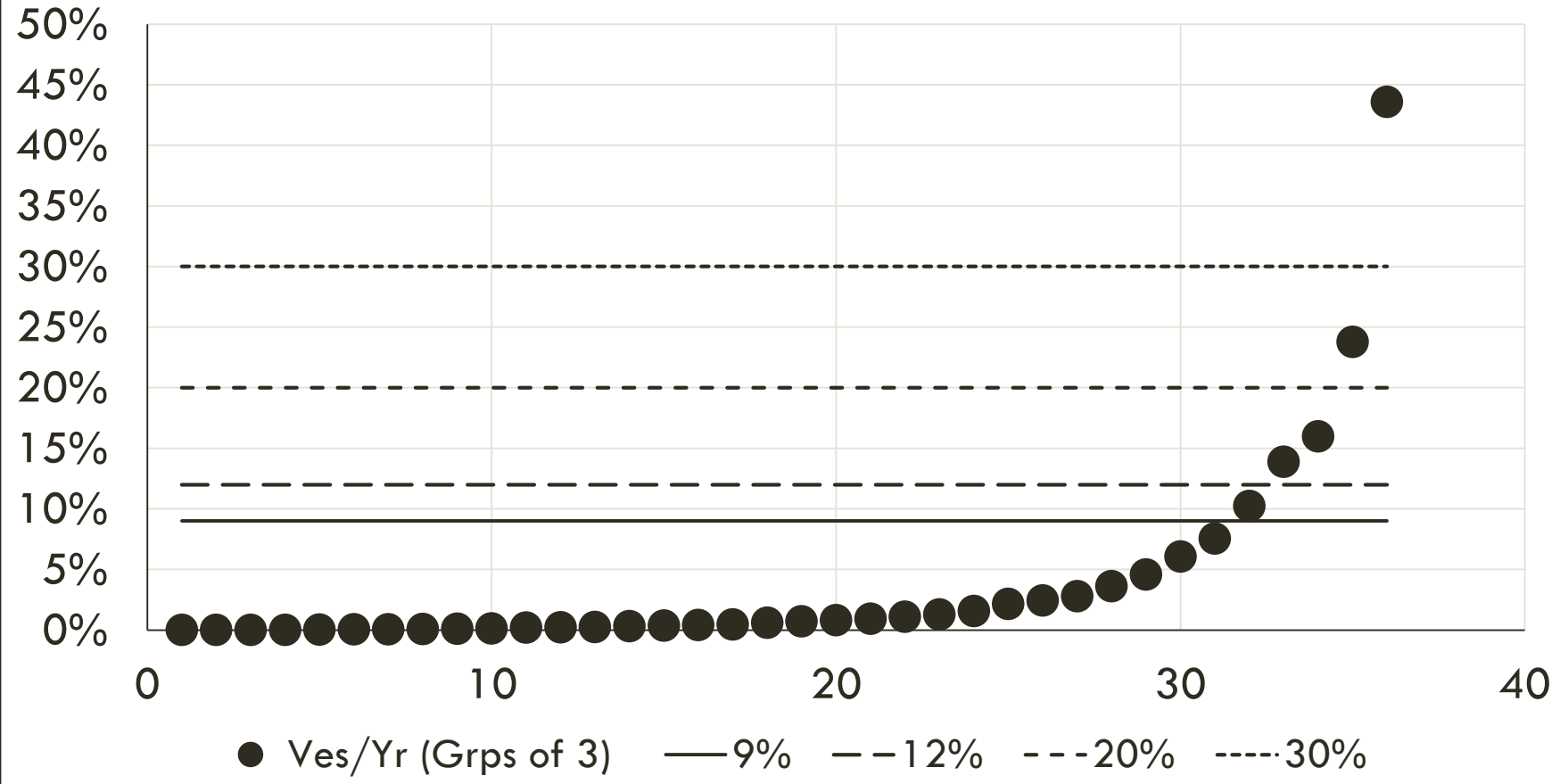
- Applied Am 26 trawl/nontrawl allocations to 2011-2017
- Compared vessel blackgill landings to trawl allocations
- Created one data point for each vessel year combination
- Arrayed the data points from smallest to largest.



DATA AGGREGATED FOR 2011-2017

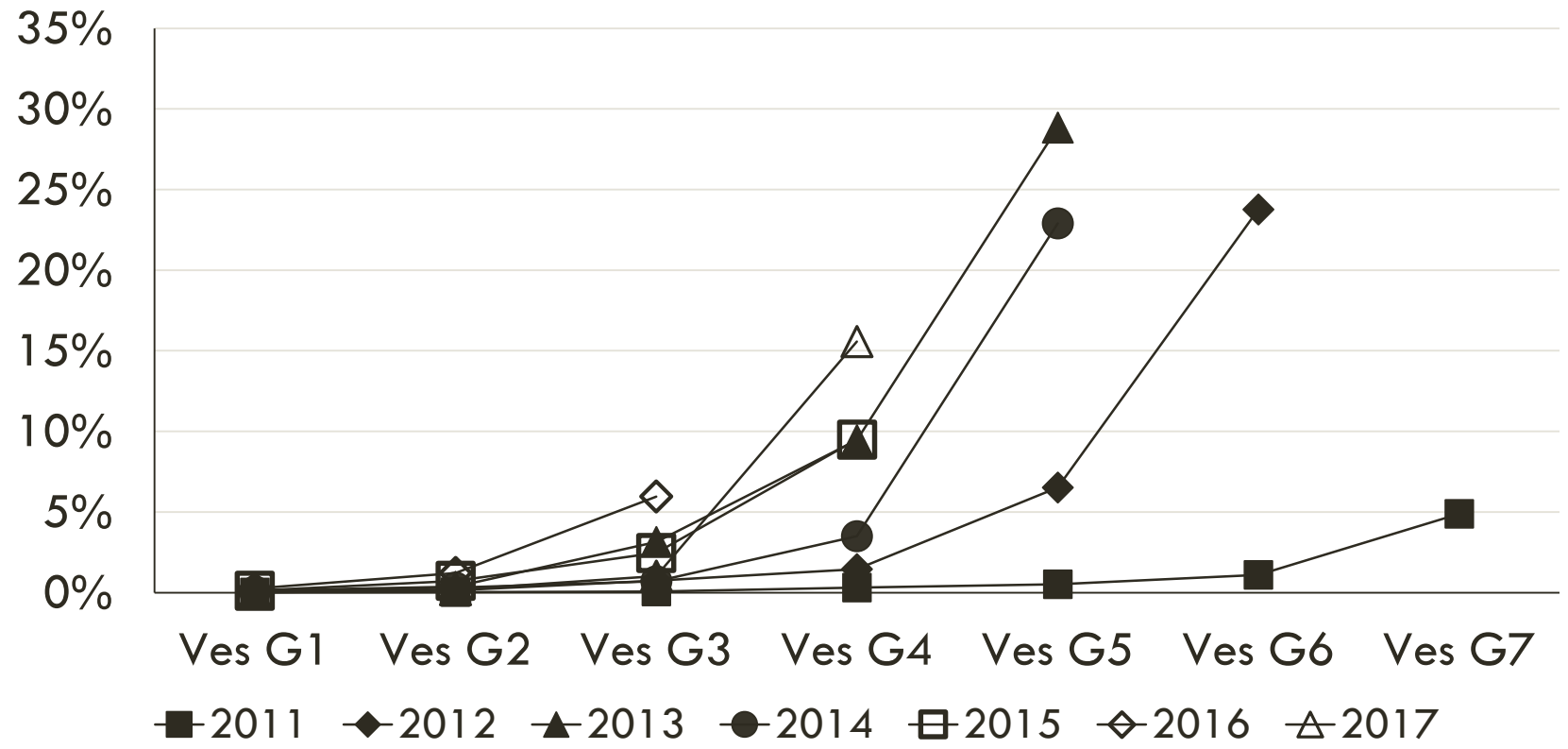
Percent of Allocation Landed

(each dot is the average of three vessel-year combinations)



DATA INDIVIDUAL YEARS: 2011-2017

Percent Allocation Landed (Groups of 3 Vessel Observations)



ESTIMATE OF FOREGONE \$ (HINDCAST)

Alt Ves QP Limit	Num of Vess	Average Exvessel Rev Per Year For		
		All Trawl IFQ Landing Days	Trawl IFQ Landing Days With Blackgill	Trawl IFQ Blackgill Rev
9%	14	417,984	303,316	16,670
12%	12	283,965	246,171	13,852
20%	6	203,375	172,536	7,677

