

2017 AND 2018 GROUNDFISH HARVEST SPECIFICATIONS

The following tables are included in this attachment:

- Table 1. 2017 and 2018 harvest specifications (overfishing limits (OFLs in mt), acceptable biological catches (ABCs in mt), and annual catch limits (ACLs in mt)), for west coast groundfish stocks and stock complexes under default harvest control rules.
- Table 2. Alternative 2017 and 2018 harvest specifications (overfishing limits (OFLs in mt), acceptable biological catches (ABCs in mt), and annual catch limits (ACLs in mt)), for select west coast groundfish stocks.

Table 1. 2017 and 2018 harvest specifications (overfishing limits (OFLs in mt), acceptable biological catches (ABCs in mt), and annual catch limits (ACLs in mt)), for west coast groundfish stocks and stock complexes under default harvest control rules (overfished stocks in CAPS; stocks with new assessments in bold; component stocks in stock complexes in italics; stocks without preferred harvest specifications decided with a range of alternatives for analysis are highlighted with no action alternatives values presented).

Stock or Stock Complex	2017			2018			Default Harvest Control Rules
	OFL	ABC	ACL	OFL	ABC	ACL	
OVERFISHED STOCKS							
BOCACCIO S. of 40°10'	2,139	2,044	790	2,013	1,924	741	ABC (P* = 0.45), ACL (SPR = 77.7%)
COWCOD S. of 40°10'	70	63	10	71	64	10	ABCs sum of Con. and Mont. area ABCs, ACLs projected from 2013 rebuilding analysis (SPR = 82.7% (F = 0.007)) + Mont. area ABC contrib., ACT = 4 mt
<i>COWCOD (Conception)</i>	58	53	NA	59	54	NA	ABC (P* = 0.45)
<i>COWCOD (Monterey)</i>	12	10	NA	12	10	NA	ACL = ABC (P* = 0.45)
DARKBLOTTCHED ROCKFISH	671	641	406	693	663	419	ABC (P* = 0.45), ACL (SPR = 64.9%)
PACIFIC OCEAN PERCH	961	919	171	985	942	176	Updated projections from 2011 rebuilding analysis using actual catches from 2011-2014 and assumed ACL removals thereafter. ABC (P* = 0.45), ACL (SPR = 86.4%)
YELLOWEYE ROCKFISH	57	47	20	58	48	20	Catch-only update from the 2011 stock assessment assuming ACL removals; ABC (P* = 0.4), ACL (SPR = 76.0%)
NON-OVERFISHED STOCKS							
Arrowtooth Flounder	16,571	13,804	13,804	16,498	13,743	13,743	ACL = ABC (P* = 0.4)
Big skate	NA	NA	NA	NA	NA	NA	EC Species (i.e., no harvest control rules or specifications)
Black Rockfish (CA)	349	334	334	347	332	332	ACL = ABC (P* = 0.45)
Black Rockfish (OR)	577	527	527	570	520	520	ACL = ABC (P* = 0.45)
Black Rockfish (WA)	319	305	305	315	301	301	ACL = ABC (P* = 0.45)
Blackgill Rockfish S. of 40°10'	NA	NA	NA	146	133	123	ACL = ABC (P* = 0.45) w/ 40-10 adjustment. Managed in the Southern Slope Rockfish complex in 2017.
Cabezon (CA)	157	150	150	156	149	149	ACL = ABC (P* = 0.45) w/ 40-10 adjustment (ACL rounds to ABC)
Cabezon (OR)	49	47	47	49	47	47	ACL = ABC (P* = 0.45)
California scorpionfish	289	264	264	286	261	261	ACL = ABC (P* = 0.45)
Canary Rockfish	1,793	1,714	1,714	1,596	1,526	1,526	ACL = ABC (P* = 0.45)
Chilipepper S. of 40°10'	2,727	2,607	2,607	2,623	2,507	2,507	ACL = ABC (P* = 0.45)
Dover Sole	89,702	85,755	50,000	90,282	86,310	50,000	ABC (P* 0.45), ACL = 50,000 mt annually
English Sole	10,914	9,964	9,964	8,255	7,537	7,537	ACL = ABC (P* = 0.45)
Lingcod N. of 40°10'	3,549	3,333	3,333	3,310	3,110	3,110	ACL = ABC (P* = 0.45)
Lingcod S. of 40°10'	1,502	1,251	1,251	1,373	1,144	1,144	ACL = ABC (P* = 0.4)
Longnose skate	2,556	2,444	2,000	2,526	2,415	2,000	ABC (P* = 0.45), ACL = 2,000 mt annually
Longspine Thornyhead N. of 34°27'	4,571	3,808	2,894	4,339	3,614	2,747	ACL = 76% of coastwide ABC (P* = 0.4)
Longspine Thornyhead S. of 34°27'			914			867	ACL = 24% of coastwide ABC (P* = 0.4)
Pacific Cod	3,200	2,221	1,600	3,200	2,221	1,600	ABC (P* = 0.4), ACL = 50% of OFL
Petrale Sole	3,280	3,136	3,136	3,152	3,013	3,013	ACL = ABC (P* = 0.45)
Sablefish N. of 36°	8,050	7,350	6,041	8,329	7,604	6,299	ACL: 40-10 rule applied to 84.9% of coastwide ABC (P* = 0.4)
Sablefish S. of 36°			1,075			1,120	ACL: 40-10 rule applied to 15.1% of coastwide ABC (P* = 0.4)
Shortbelly	6,950	5,789	500	6,950	5,789	500	ABC (P* = 0.4), ACL = 500 mt annually
Shortspine Thornyhead N. of 34°27'	3,144	2,619	1,713	3,116	2,596	1,698	ACL = 65.4% of coastwide ABC (P* = 0.4)
Shortspine Thornyhead S. of 34°27'			906			898	ACL = 34.6% of coastwide ABC (P* = 0.4)

Stock or Stock Complex	2017			2018			Default Harvest Control Rules
	OFL	ABC	ACL	OFL	ABC	ACL	
Spiny dogfish	2,514	2,094	2,094	2,500	2,083	2,083	ACL = ABC ($P^* = 0.4$)
Splitnose S. of 40°10'	1,841	1,760	1,760	1,842	1,761	1,761	ACL = ABC ($P^* = 0.45$)
Starry flounder	1,847	1,282	1,282	1,847	1,282	1,282	ACL = ABC ($P^* = 0.4$). NOTE: The Council is considering managing this stock in the Other Flatfish complex beginning in 2017.
Widow Rockfish	14,130	13,508	2,000	14,511	13,873	2,000	ABC ($P^* = 0.45$), ACL = 2,000 mt annually
Yellowtail N. of 40°10'	6,786	6,196	6,196	6,574	6,002	6,002	ACL = ABC ($P^* = 0.45$)
STOCK COMPLEXES							
Nearshore Rockfish North	118	105	105	119	105	105	Sum of component species specifications
<i>Black and yellow</i>	0.0	0.0	0.0	0.0	0.0	0.0	ACL = ABC ($P^* = 0.45$)
<i>Blue (CA)</i>	34.1	31.1	30.9	34.8	31.8	31.8	ACL = ABC ($P^* = 0.45$) w/40-10 adjustment. The stock is projected to be above target in 2018 under the Expected Catch scenario.
<i>Blue (OR & WA)</i>	32.3	26.9	26.9	32.3	26.9	26.9	ACL = ABC ($P^* = 0.45$)
<i>Brown</i>	2.0	1.8	1.8	2.0	1.9	1.9	ACL = ABC ($P^* = 0.45$)
<i>Calico</i>	-	-	-	-	-	-	ACL = ABC ($P^* = 0.45$)
<i>China</i>	30.2	27.5	27.5	29.3	26.8	26.8	ACL = ABC ($P^* = 0.45$)
<i>Copper</i>	11.2	10.3	10.3	11.6	10.6	10.6	ACL = ABC ($P^* = 0.45$)
<i>Gopher</i>	-	-	-	-	-	-	ACL = ABC ($P^* = 0.45$)
<i>Grass</i>	0.7	0.5	0.5	0.7	0.5	0.5	ACL = ABC ($P^* = 0.45$)
<i>Kelp</i>	0.0	0.0	0.0	0.0	0.0	0.0	ACL = ABC ($P^* = 0.45$)
<i>Olive</i>	0.3	0.3	0.3	0.3	0.3	0.3	ACL = ABC ($P^* = 0.45$)
<i>Quillback</i>	7.4	6.2	6.2	7.4	6.2	6.2	ACL = ABC ($P^* = 0.45$)
<i>Treefish</i>	0.2	0.2	0.2	0.2	0.2	0.2	ACL = ABC ($P^* = 0.45$)
Shelf Rockfish North	2,303	2,049	2,049	2,302	2,048	2,047	Sum of component species specifications
<i>Bronzespotted</i>	-	-	-	-	-	-	ACL = ABC ($P^* = 0.45$)
<i>Bocaccio</i>	284.0	236.9	236.9	284.0	236.9	236.9	ACL = ABC ($P^* = 0.45$)
<i>Chameleon</i>	-	-	-	-	-	-	ACL = ABC ($P^* = 0.45$)
<i>Chilipepper</i>	205.2	196.2	196.2	197.4	188.7	188.7	ACL = ABC ($P^* = 0.45$)
<i>Cowcod</i>	0.4	0.3	0.3	0.4	0.3	0.3	ACL = ABC ($P^* = 0.45$)
<i>Flag</i>	0.1	0.1	0.1	0.1	0.1	0.1	ACL = ABC ($P^* = 0.45$)
<i>Freckled</i>	-	-	-	-	-	-	ACL = ABC ($P^* = 0.45$)
<i>Greenblotched</i>	1.3	1.1	1.1	1.3	1.1	1.1	ACL = ABC ($P^* = 0.45$)
<i>Greenspotted 40°10' to 42° N. lat.</i>	9.4	8.5	8.2	9.3	8.5	8.2	ACL: 40-10 rule applied to 22.2% of northern model (CA N of 34°27' N latitude) ABC ($P^* = 0.45$)
<i>Greenspotted N. of 42 N. lat. (OR & WA)</i>	6.1	5.1	5.1	6.1	5.1	5.1	ACL = ABC ($P^* = 0.45$)
<i>Greenstriped</i>	1,299.6	1,186.5	1,186.5	1,306.4	1,192.7	1,192.7	ACL = ABC ($P^* = 0.45$)
<i>Halfbanded</i>	-	-	-	-	-	-	ACL = ABC ($P^* = 0.45$)
<i>Harlequin</i>	-	-	-	-	-	-	ACL = ABC ($P^* = 0.45$)
<i>Honeycomb</i>	-	-	-	-	-	-	ACL = ABC ($P^* = 0.45$)
<i>Mexican</i>	-	-	-	-	-	-	ACL = ABC ($P^* = 0.45$)
<i>Pink</i>	0.0	0.0	0.0	0.0	0.0	0.0	ACL = ABC ($P^* = 0.45$)
<i>Pinkrose</i>	-	-	-	-	-	-	ACL = ABC ($P^* = 0.45$)

Stock or Stock Complex	2017			2018			Default Harvest Control Rules
	OFL	ABC	ACL	OFL	ABC	ACL	
<i>Puget Sound</i>	-	-	-	-	-	-	<i>ACL = ABC (P* = 0.45)</i>
<i>Pygmy</i>	-	-	-	-	-	-	<i>ACL = ABC (P* = 0.45)</i>
<i>Redstripe</i>	269.9	225.1	225.1	269.9	225.1	225.1	<i>ACL = ABC (P* = 0.45)</i>
<i>Rosethorn</i>	12.9	10.8	10.8	12.9	10.8	10.8	<i>ACL = ABC (P* = 0.45)</i>
<i>Rosy</i>	3.0	2.5	2.5	3.0	2.5	2.5	<i>ACL = ABC (P* = 0.45)</i>
<i>Silvergray</i>	159.4	133.0	133.0	159.4	133.0	133.0	<i>ACL = ABC (P* = 0.45)</i>
<i>Speckled</i>	0.2	0.1	0.1	0.2	0.1	0.1	<i>ACL = ABC (P* = 0.45)</i>
<i>Squarespot</i>	0.2	0.1	0.1	0.2	0.1	0.1	<i>ACL = ABC (P* = 0.45)</i>
<i>Starry</i>	0.0	0.0	0.0	0.0	0.0	0.0	<i>ACL = ABC (P* = 0.45)</i>
<i>Stripetail</i>	40.4	33.7	33.7	40.4	33.7	33.7	<i>ACL = ABC (P* = 0.45)</i>
<i>Swordspine</i>	0.0	0.0	0.0	0.0	0.0	0.0	<i>ACL = ABC (P* = 0.45)</i>
<i>Tiger</i>	1.0	0.8	0.8	1.0	0.8	0.8	<i>ACL = ABC (P* = 0.45)</i>
<i>Vermilion</i>	9.7	8.1	8.1	9.7	8.1	8.1	<i>ACL = ABC (P* = 0.45)</i>
Slope Rockfish North	1,897	1,755	1,755	1,896	1,754	1,754	Sum of component species specifications
<i>Aurora (assuming sigma = 0.39)</i>	17.5	16.6	16.6	17.5	16.6	16.6	<i>ACL = ABC (P* = 0.45)</i>
<i>Bank</i>	17.2	14.4	14.4	17.2	14.4	14.4	<i>ACL = ABC (P* = 0.45)</i>
<i>Blackgill</i>	4.7	3.9	3.9	4.7	3.9	3.9	<i>ACL = ABC (P* = 0.45)</i>
<i>Redbanded</i>	45.3	37.7	37.7	45.3	37.7	37.7	<i>ACL = ABC (P* = 0.45)</i>
<i>Rougheye/Blackspotted</i>	210.7	192.4	192.4	214.6	195.9	195.9	<i>ACL = ABC (P* = 0.45)</i>
<i>Sharpchin</i>	364.0	332.3	332.3	358.4	327.2	327.2	<i>ACL = ABC (P* = 0.45)</i>
<i>Shortraker</i>	18.7	15.6	15.6	18.7	15.6	15.6	<i>ACL = ABC (P* = 0.45)</i>
<i>Splitnose</i>	1,026.7	981.6	981.6	1,027.1	981.9	981.9	<i>ACL = ABC (P* = 0.45)</i>
<i>Yellowmouth</i>	192.4	160.5	160.5	192.4	160.5	160.5	<i>ACL = ABC (P* = 0.45)</i>
Nearshore Rockfish South	1,329	1,166	1,163	1,344	1,180	1,179	Sum of component species specifications
<i>Shallow Nearshore Species</i>	NA	NA	NA	NA	NA	NA	NA
<i>Black and yellow</i>	27.5	23.0	23.0	27.5	23.0	23.0	<i>ACL = ABC (P* = 0.45)</i>
<i>China</i>	13.3	12.2	10.8	13.8	12.6	11.5	<i>ACL = ABC (P* = 0.45) w/ 40-10 adjustment</i>
<i>Gopher (N of Pt. Conception)</i>	144.0	120.1	120.1	144.0	120.1	120.1	<i>ACL = ABC (P* = 0.45)</i>
<i>Gopher (S of Pt. Conception)</i>	25.6	21.4	21.4	25.6	21.4	21.4	<i>ACL = ABC (P* = 0.45)</i>
<i>Grass</i>	59.6	49.7	49.7	59.6	49.7	49.7	<i>ACL = ABC (P* = 0.45)</i>
<i>Kelp</i>	27.7	23.1	23.1	27.7	23.1	23.1	<i>ACL = ABC (P* = 0.45)</i>
<i>Deeper Nearshore Species</i>	NA	NA	NA	NA	NA	NA	NA
<i>Blue (assessed area)</i>	234.5	214.1	212.8	239.4	218.6	218.6	<i>ACL = ABC (P* = 0.45) w/ 40-10 adjustment. The stock is projected to be above target in 2018 under the Expected Catch scenario.</i>
<i>Blue (S of 34°27' N. lat.)</i>	72.9	60.8	60.8	72.9	60.8	60.8	<i>ACL = ABC (P* = 0.45)</i>
<i>Brown</i>	170.0	155.2	155.2	174.0	158.8	158.8	<i>ACL = ABC (P* = 0.45)</i>
<i>Calico</i>	-	-	-	-	-	-	<i>ACL = ABC (P* = 0.45)</i>
<i>Copper</i>	310.9	283.8	283.8	316.7	289.2	289.2	<i>ACL = ABC (P* = 0.45)</i>
<i>Olive</i>	224.6	187.4	187.4	224.6	187.4	187.4	<i>ACL = ABC (P* = 0.45)</i>
<i>Quillback</i>	5.4	4.5	4.5	5.4	4.5	4.5	<i>ACL = ABC (P* = 0.45)</i>
<i>Treefish</i>	13.2	11.0	11.0	13.2	11.0	11.0	<i>ACL = ABC (P* = 0.45)</i>

Stock or Stock Complex	2017			2018			Default Harvest Control Rules
	OFL	ABC	ACL	OFL	ABC	ACL	
Shelf Rockfish South	1,917	1,624	1,623	1,918	1,625	1,624	Sum of component species specifications
<i>Bronzespotted</i>	3.6	3.0	3.0	3.6	3.0	3.0	$ACL = ABC (P^* = 0.45)$
<i>Chameleon</i>	-	-	-	-	-	-	$ACL = ABC (P^* = 0.45)$
<i>Flag</i>	23.4	19.5	19.5	23.4	19.5	19.5	$ACL = ABC (P^* = 0.45)$
<i>Freckled</i>	-	-	-	-	-	-	$ACL = ABC (P^* = 0.45)$
<i>Greenblotched</i>	23.1	19.3	19.3	23.1	19.3	19.3	$ACL = ABC (P^* = 0.45)$
<i>Greenspotted</i>	78.9	72.0	70.9	78.5	71.7	70.7	<i>ACL: 40-10 rule applied to 77.8% of northern model (CA N of 34°27' N latitude) ABC plus the southern model ABC (P* = 0.45)</i>
<i>Greenstriped</i>	238.4	217.7	217.7	239.6	218.8	218.8	$ACL = ABC (P^* = 0.45)$
<i>Halfbanded</i>	-	-	-	-	-	-	$ACL = ABC (P^* = 0.45)$
<i>Harlequin</i>	-	-	-	-	-	-	$ACL = ABC (P^* = 0.45)$
<i>Honeycomb</i>	9.9	8.2	8.2	9.9	8.2	8.2	$ACL = ABC (P^* = 0.45)$
<i>Mexican</i>	5.1	4.2	4.2	5.1	4.2	4.2	$ACL = ABC (P^* = 0.45)$
<i>Pink</i>	2.5	2.1	2.1	2.5	2.1	2.1	$ACL = ABC (P^* = 0.45)$
<i>Pinkrose</i>	-	-	-	-	-	-	$ACL = ABC (P^* = 0.45)$
<i>Pygmy</i>	-	-	-	-	-	-	$ACL = ABC (P^* = 0.45)$
<i>Redstripe</i>	0.5	0.4	0.4	0.5	0.4	0.4	$ACL = ABC (P^* = 0.45)$
<i>Rosethorn</i>	2.1	1.8	1.8	2.1	1.8	1.8	$ACL = ABC (P^* = 0.45)$
<i>Rosy</i>	44.5	37.1	37.1	44.5	37.1	37.1	$ACL = ABC (P^* = 0.45)$
<i>Silvergray</i>	0.5	0.4	0.4	0.5	0.4	0.4	$ACL = ABC (P^* = 0.45)$
<i>Speckled</i>	39.4	32.8	32.8	39.4	32.8	32.8	$ACL = ABC (P^* = 0.45)$
<i>Squarespot</i>	11.1	9.2	9.2	11.1	9.2	9.2	$ACL = ABC (P^* = 0.45)$
<i>Starry</i>	62.6	52.2	52.2	62.6	52.2	52.2	$ACL = ABC (P^* = 0.45)$
<i>Stripetail</i>	23.6	19.7	19.7	23.6	19.7	19.7	$ACL = ABC (P^* = 0.45)$
<i>Swordspine</i>	14.2	11.9	11.9	14.2	11.9	11.9	$ACL = ABC (P^* = 0.45)$
<i>Tiger</i>	0.0	0.0	0.0	0.0	0.0	0.0	$ACL = ABC (P^* = 0.45)$
<i>Vermilion</i>	269.3	224.6	224.6	269.3	224.6	224.6	$ACL = ABC (P^* = 0.45)$
<i>Yellowtail</i>	1,064.4	887.7	887.7	1,064.4	887.7	887.7	$ACL = ABC (P^* = 0.45)$
Slope Rockfish South	827	718	707	683	586	586	Sum of component species specifications
<i>Aurora (assuming sigma = 0.39)</i>	74.4	70.9	70.9	74.5	71.0	71.0	$ACL = ABC (P^* = 0.45)$
<i>Bank</i>	503.2	419.7	419.7	503.2	419.7	419.7	$ACL = ABC (P^* = 0.45)$
<i>Blackgill</i>	143.0	130.6	120.2	NA	NA	NA	<i>ACL = ABC (P*=0.45) w/ 40-10 adjustment. Managed with stock-specific specifications in 2018.</i>
<i>Pacific ocean perch</i>	-	-	-	-	-	-	$ACL = ABC (P^* = 0.45)$
<i>Redbanded</i>	10.4	8.7	8.7	10.4	8.7	8.7	$ACL = ABC (P^* = 0.45)$
<i>Rougheye/Blackspotted</i>	4.3	3.9	3.9	4.4	4.0	4.0	$ACL = ABC (P^* = 0.45)$
<i>Sharpchin</i>	91.0	83.1	83.1	89.6	81.8	81.8	$ACL = ABC (P^* = 0.45)$
<i>Shortraker</i>	0.1	0.1	0.1	0.1	0.1	0.1	$ACL = ABC (P^* = 0.45)$
<i>Yellowmouth</i>	0.8	0.7	0.7	0.8	0.7	0.7	$ACL = ABC (P^* = 0.45)$
Other Flatfish	11,165	8,510	8,510	9,690	7,281	7,281	Sum of component species specifications
<i>Butter sole</i>	4.6	3.2	3.2	4.6	3.2	3.2	$ACL = ABC (P^* = 0.4)$
<i>Curlfin sole</i>	8.2	5.7	5.7	8.2	5.7	5.7	$ACL = ABC (P^* = 0.4)$

Stock or Stock Complex	2017			2018			Default Harvest Control Rules
	OFL	ABC	ACL	OFL	ABC	ACL	
Flathead sole	35.0	24.3	24.3	35.0	24.3	24.3	ACL = ABC ($P^* = 0.4$)
Pacific sanddab	4,801.0	3,331.9	3,331.9	4,801.0	3,331.9	3,331.9	ACL = ABC ($P^* = 0.4$)
Rex sole	5,476	4,562	4,562	4,001	3,333	3,333	ACL = ABC ($P^* = 0.4$)
Rock sole	66.7	46.3	46.3	66.7	46.3	46.3	ACL = ABC ($P^* = 0.4$)
Sand sole	773.2	536.6	536.6	773.2	536.6	536.6	ACL = ABC ($P^* = 0.4$)
Other Fish	537	474	474	501	441	441	Sum of component species specifications
Cabezon (WA)	4.5	3.8	3.8	4.8	4.0	4.0	ACL = ABC ($P^* = 0.45$)
Kelp greenling (CA)	118.9	99.2	99.2	118.9	99.2	99.2	ACL = ABC ($P^* = 0.45$)
Kelp greenling (OR) assuming sigma = 0.44	239.1	226.2	226.2	203.2	192.2	192.2	Preferred ACL = ABC ($P^* = 0.45$)
Kelp greenling (WA)	7.1	5.9	5.9	7.1	5.9	5.9	Preferred ACL = ABC ($P^* = 0.45$)
Leopard shark	167.1	139.4	139.4	167.1	139.4	139.4	ACL = ABC ($P^* = 0.45$)

Table 2. Alternative 2017 and 2018 harvest specifications (overfishing limits (OFLs in mt), acceptable biological catches (ABCs in mt), and annual catch limits (ACLs in mt)), for select west coast groundfish stocks (overfished stocks in CAPS and stocks with new assessments in bold).

Stock							No Action ACL Basis	
	2017			2018				
	OFL	ABC	ACL	OFL	ABC	ACL		
DARKBLOTTCHED ROCKFISH	671	641	406	693	663	419	SPR = 64.9%	
Black Rockfish (CA)	349	334	334	347	332	332	ACL = ABC (P* = 0.45)	
California scorpionfish	289	264	264	286	261	261	ACL = ABC (P* = 0.45)	
Canary Rockfish	1,793	1,714	1,714	1,596	1,526	1,526	ACL = ABC (P* = 0.45)	
Widow Rockfish	14,130	13,508	2,000	14,511	13,873	2,000	2,000 mt constant catch	
Alternative 1								
Stock	2017			2018			ACL Basis	
	OFL	ABC	ACL	OFL	ABC	ACL		
	671	641	641	683	653	653	ACL = ABC (P* = 0.45)	
DARKBLOTTCHED ROCKFISH	671	641	641	683	653	653	Constant catch ACL which maintains stock depletion above 40% in the next 10 years	
Black Rockfish (CA)	349	334	319	348	333	319	150 mt constant catch	
California scorpionfish	289	264	150	278	254	150	50% of No Action ACL	
Canary Rockfish	1,793	1,714	857	1,735	1,659	763	ACL = ABC (P* = 0.45)	
Widow Rockfish	14,130	13,508	13,508	13,237	12,655	12,655		
Alternative 2								
Stock	2017			2018			ACL Basis	
	OFL	ABC	ACL	OFL	ABC	ACL		
	1,793	1,714	566	1,760	1,526	504	33% of No Action ACL	

PFMC
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