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From: **Bill James** <HalibutBill@live.com>

Date: Tue, Aug 15, 2017 at 3:58 PM

Subject: Agenda Item E.9 Initial Harvest Specifications and Management Measures Actions for 2019-2020 Management September 2017

To: "pfmc.comments" <pfmc.comments@noaa.gov>

Chairman Pollard Vice Chair Anderson Members of the Council:

My name is Bill James. I am the fishery consultant for PSLCFA and I am representing them at this meeting. I am also a member of MBCFA. I have fished Nearshore finfish species since 1993. I have fished Nearshore in all 4 regions of California.

I request the following harvest specifications for the areas 40:10 to 34:27:

- 1). Shallow Nearshore: 1200 lbs./ 2 months open periods 1-6 (year round).
- 2). Deeper Nearshore: 1000 lbs./ 2 months + additional 200 lbs./2 months of Black Rockfish/Blue Rockfish open periods 1-6 (year round)
- 3). Lingcod: 600 lbs. May- Nov. 300lbs. Jan.- April: Dec.
- 4). Canary Rockfish: 200lbs./ 2 months
- 5). Bocaccio: 500 lbs. 2/ months open periods 1-6 (year round)
- 6). Minor Shelf Rockfish:
 - A). 0-40 fathoms 400 lbs./ 2 months open periods 1-6 (year round)
 - B). 40-80 fathoms 2000 lbs./ 2 months open periods 1-6 (year round) with gear restrictions.

Gear restrictions: Rod and Reel or Vertical Gear only with 50 ft. buffer between sinker and bottom hook.

(Platt-Emily gear). No longline, gill net, or dingle bar gear 40-80 fathoms.

Please note : To protect Yelloweye Rockfish I chose gear restrictions because vertical gear with buffer has a very low probability of encountering Yelloweye Rockfish. I chose gear restrictions over Yelloweye Hotspot closures because:

- 1). Hotspots close of large area of reef that could be fished with vertical gear while avoiding Yelloweye.

- 2). Enforcement of additional boundary lines is difficult with wind and current. Longline gear with 1000's of hooks on the bottom could cause a lot of lightning strikes which could possibly close the fishery or greatly reduce trip limits of abundant rockfish species to the point of great economic harm.
- 3). Enforcement of gear restrictions is easier for the enforcement wardens.
- 7). Additional needs for a sustainable small vessel groundfish fishery while conserving yelloweye Rockfish.
 - A). More complete area observer coverage of fleet in all area and depths to meet confidentiality requirements
 - B). Refinement of observer data to include two gear boxes: 1) rod and reel, vertical gear 2). Longline, gill net, dingle bar.
- 8).GMT to track effort changes to directed open access groundfish vessels.
- 9). One additional GAP seat for Nearshore and directed open access groundfish fishermen to be shared between participating states.
- 10). Federal non trawl transferable B permit for Shelf Rockfish and Lingcod only. For Nearshore and directed open access participating vessels.

Field	Description
Years	Years combined as requested
Area	Area that was requested
DepthBin.fm	Depth bin, in fathoms 0-10, 10-20, >20. Note that, to meet confidentiality, the 10-20 bin has been combined with the >20 bin in some areas.
No.vessels*	Number of observed vessels
No.trips	Number of observed trips
No.sets	Number of observed sets
Grouping	Management group that the species belongs to
Species	Common name of the species
TotalLandings.lbs	Total landed weight, in pounds, of Nearshore species. Obtained from fish tickets and allocated to depth using proportion of ObservedRetained.lbs
GrossDiscard.lbs	Weight of fleet-wide catch , in pounds, discarded without mortality rate
DiscardMortality.lbs	Weight of fleet-wide catch , in pounds, discarded multiplied by the species-depth specific mortality rate

Observed catch and other data used to calculate fleet-wide catch cannot be disclosed because of confidentiality. This occurred due to new methods being applied for use with the addition depth stratum added by PFMC.

* Note that the number of unique vessels cannot be summed across strata because the a single vessel could fish in more than 1 stratum.

Mortality rates can be obtained from Table A-4 of the Groundfish Mortality Report:

https://www.nwfsc.noaa.gov/research/divisions/fram/observation/xls/Groundfish_Mortality_2015_Tables_2017-05-05.xlsx

Year	Area	DepthBin.fm	No.vessels	No.trips	No.sets	Grouping	Species	TotalNSsppLandings.lbs	GrossDiscard.lbs	DiscardMortality.lbs
2016	North of 42.0 N OR-CA line	0-10 fm	37	86	96	Canary rockfish	Canary Rockfish	159724.7	754.9	203.8
2016	North of 42.0 N OR-CA line	10-20 fm	44	117	143	Canary rockfish	Canary Rockfish	220391.2	3396.2	1460.4
2016	North of 42.0 N OR-CA line	>20 fm	16	54	56	Canary rockfish	Canary Rockfish	29022.3	103.5	70.6
2016	OR-CA line to 4010 Mgmt Line	0-10 fm	6	14	15	Canary rockfish	Canary Rockfish	59555.3	304.5	82.2
2016	OR-CA line to 4010 Mgmt Line	>10 fm	8	25	26	Canary rockfish	Canary Rockfish	92754.3	742.9	380.4
2016	4010 Mgmt Line to Ano Nuevo, CA	0-10 fm	3	6	9	No Canary Observed	No Canary Observed	27964.0	0.0	0.0
2016	4010 Mgmt Line to Ano Nuevo, CA	>10 fm	3	12	13	Canary rockfish	Canary Rockfish	41077.0	10413.4	7393.5
2016	Ano Nuevo, CA to Pt. Conception	0-10 fm	10	27	27	Canary rockfish	Canary Rockfish	146191.4	164.4	95.4
2016	Ano Nuevo, CA to Pt. Conception	>10 fm	7	16	17	Canary rockfish	Canary Rockfish	77308.9	20.8	14.8
2016	South of Pt. Conception	0-10 fm	7	14	37	No Canary Observed	No Canary Observed	61066.6	0.0	0.0
2016	South of Pt. Conception	>10 fm	12	20	24	No Canary Observed	No Canary Observed	74898.4	0.0	0.0
2016	TOTALS	--	--	391	463			989954.3	15900.7	9701.1

Year	Area	DepthBin.fm	No.vessels	No.trips	No.sets	Grouping	Species	TotalNSsppLandings.lbs	GrossDiscard.lbs	DiscardMortality.lbs
2016	North of 42.0 N OR-CA line	0-10 fm	37	86	96	Yelloweye rockfish	Yelloweye Rockfish	159724.7	347.1	97.2
2016	North of 42.0 N OR-CA line	10-20 fm	44	117	143	Yelloweye rockfish	Yelloweye Rockfish	220391.2	2009.3	904.2
2016	North of 42.0 N OR-CA line	>20 fm	16	54	56	Yelloweye rockfish	Yelloweye Rockfish	29022.3	42.5	37.1
2016	OR-CA line to 4010 Mgmt Line	0-10 fm	6	14	15	No Yelloweye Observed	No Yelloweye Observed	59555.3	0.0	0.0
2016	OR-CA line to 4010 Mgmt Line	>10 fm	8	25	26	Yelloweye rockfish	Yelloweye Rockfish	92754.3	909.5	530.6
2016	4010 Mgmt Line to Ano Nuevo, CA	0-10 fm	3	6	9	No Yelloweye Observed	No Yelloweye Observed	27964.0	0.0	0.0
2016	4010 Mgmt Line to Ano Nuevo, CA	>10 fm	3	12	13	No Yelloweye Observed	No Yelloweye Observed	41077.0	0.0	0.0
2016	Ano Nuevo, CA to Pt. Conception	0-10 fm	10	27	27	No Yelloweye Observed	No Yelloweye Observed	146191.4	0.0	0.0
2016	Ano Nuevo, CA to Pt. Conception	>10 fm	7	16	17	No Observed Vessels	No Observed Vessels	77308.9	0.0	0.0
2016	South of Pt. Conception	0-10 fm	7	14	37	No Yelloweye Observed	No Yelloweye Observed	61066.6	0.0	0.0
2016	South of Pt. Conception	>10 fm	12	20	24	No Yelloweye Observed	No Yelloweye Observed	74898.4	0.0	0.0
2016	TOTALS			391	463			989954.3	3308.5	1569.1

Field	Description
Years	Years combined as requested
Area	Area that was requested
DepthBin.fm	Depth bin, in fathoms 0-10, 10-20, >20. Depth represents the average depth the gear was fished. Note that, to meet confidentiality, the 10-20 bin has been combined with the >20 bin in some areas and is labeled as >10.
No.vessels*	Number of observed vessels
No.trips	Number of observed trips
No.sets	Number of observed sets
Grouping	Management group that the species belongs to
Species	Common name of the species
ObservedDiscard.lbs	Observed discarded weight, in pounds
ObservedRetained.lbs	Observed retained weight of Nearshore species, in pounds
DiscardRatio	Discard ratio used to expand to the unobserved portion of the fleet. Calculated as ObservedDiscard.lbs/ObservedRetained.lbs
TotalLandings.lbs	Total landed weight, in pounds, of Nearshore species. Obtained from fish tickets and allocated to depth using proportion of ObservedRetained.lbs
GrossDiscard.lbs	Weight of fish, in pounds, discarded without mortality rate
MortalityRate ¹	Species-depth specific mortality rate. In cases where two depth bins had to be combined for confidentiality, an average of the two mortality rates was calculated and applied.
DiscardMortality.lbs	Weight of fish, in pounds, discarded multiplied by the species-depth specific mortality rate

* Note that the number of unique vessels cannot be summed across strata because the a single vessel could fish in more than 1 stratum.

Mortality rates can be obtained from Table A-4 of the Groundfish Mortality Report:

¹ https://www.nwfsc.noaa.gov/research/divisions/fram/observation/xls/Groundfish_Mortality_2014_Tables.xlsx

Canary Rockfish

Years	Area	DepthBin.fm	No.vessels	No.trips	No.sets	Grouping	Species	ObservedDiscard.lbs	ObservedRetained.lbs	DiscardRatio	TotalLandings.lbs	GrossDiscard.lbs	MortalityRate	DiscardMortality.lbs
2010-12	North of 42.0 N OR-CA line	'0-10	41	101	113	Canary rockfish	Canary Rockfish	215.4	48463.84	0	501175.46	2227.5	0.32	712.8
2010-12	North of 42.0 N OR-CA line	'10-20	48	147	173	Canary rockfish	Canary Rockfish	755.17	60220.39	0.01	707802.37	8875.92	0.54	4792.99
2010-12	North of 42.0 N OR-CA line	'>20	4	5	5	Canary rockfish	Canary Rockfish	40.45	965.06	0.04	37481.79	1571.02	1	1571.02
2010-12	OR-CA line to 4010 Mgmt Line	'0-10	3	8	16	Canary rockfish	Canary Rockfish	77.65	10458.58	0.01	89748.46	666.34	0.32	213.23
2010-12	OR-CA line to 4010 Mgmt Line	'>10	4	24	32	Canary rockfish	Canary Rockfish	585.37	24803.73	0.02	187284.63	4419.93	0.77	3403.35
2010-12	4010 Mgmt Line to Ano Nuevo, CA	'0-10	13	43	80	Canary rockfish	Canary Rockfish	40.5	2768.72	0.01	82641.91	1208.86	0.32	386.84
2010-12	4010 Mgmt Line to Ano Nuevo, CA	'10-20	9	62	77	Canary rockfish	Canary Rockfish	925.35	3925.16	0.24	77376.49	18241.36	0.54	9850.34
2010-12	4010 Mgmt Line to Ano Nuevo, CA	'>20	6	40	42	Canary rockfish	Canary Rockfish	1311.55	3813.62	0.34	29464.06	10133.05	1	10133.05
2010-12	Ano Nuevo, CA to Pt. Conception	'0-10	15	62	97	No Canary Observed			4928.32		353187.4			
2010-12	Ano Nuevo, CA to Pt. Conception	'10-20	15	51	62	Canary rockfish	Canary Rockfish	164.37	3419.2	0.05	244822.73	11769.29	0.54	6355.41
2010-12	Ano Nuevo, CA to Pt. Conception	'>20	4	7	7	Canary rockfish	Canary Rockfish	85.1	716.7	0.12	24920.29	2959	1	2959
2010-12	South of Pt. Conception	'0-10	7	12	20	No Canary Observed			3465.24		185888.12			
2010-12	South of Pt. Conception	'>10	7	14	28	No Canary Observed			2026.26		128380.68			
2010-12	TOTALS*			576	752	Canary rockfish	Canary Rockfish	4201	169975	0.025	2650174	65498.78	--	40378

Yelloweye Rockfish

Years	Area	DepthBin.fm	No.vessels	No.trips	No.sets	Grouping	Species	ObservedDiscard.lbs	ObservedRetained.lbs	DiscardRatio	TotalLandings.lbs	GrossDiscard.lbs	MortalityRate	DiscardMortality.lbs
2010-12	North of 42.0 N OR-CA line	'0-10	41	101	113	Yelloweye rockfish	Yelloweye Rockfish	280.92	48463.84	0.01	501175.46	2905.06	0.32	929.62
2010-12	North of 42.0 N OR-CA line	'10-20	48	147	173	Yelloweye rockfish	Yelloweye Rockfish	655.21	60220.39	0.01	707802.37	7701.03	0.56	4312.58
2010-12	North of 42.0 N OR-CA line	'>20	4	5	5	Yelloweye rockfish	Yelloweye Rockfish	17.4	965.06	0.02	37481.79	675.79	1	675.79
2010-12	OR-CA line to 4010 Mgmt Line	'0-10	3	8	16	Yelloweye rockfish	Yelloweye Rockfish	24.9	10458.58	0	89748.46	213.67	0.32	68.38
2010-12	OR-CA line to 4010 Mgmt Line	'>10	4	24	32	Yelloweye rockfish	Yelloweye Rockfish	402.15	24803.73	0.02	187284.63	3036.5	0.78	2368.47
2010-12	4010 Mgmt Line to Ano Nuevo, CA	'0-10	13	43	80				2768.72		82641.91			
2010-12	4010 Mgmt Line to Ano Nuevo, CA	'10-20	9	62	77	Yelloweye rockfish	Yelloweye Rockfish	9.4	3925.16	0	77376.49	185.3	0.56	103.77
2010-12	4010 Mgmt Line to Ano Nuevo, CA	'>20	6	40	42	Yelloweye rockfish	Yelloweye Rockfish	14.36	3813.62	0	29464.06	110.95	1	110.95
2010-12	Ano Nuevo, CA to Pt. Conception	'0-10	15	62	97				4928.32		353187.4			
2010-12	Ano Nuevo, CA to Pt. Conception	'10-20	15	51	62	Yelloweye rockfish	Yelloweye Rockfish	3	3419.2	0	244822.73	214.81	0.56	120.29
2010-12	Ano Nuevo, CA to Pt. Conception	'>20	4	7	7	Yelloweye rockfish	Yelloweye Rockfish	5.25	716.7	0.01	24920.29	182.55	1	182.55
2010-12	South of Pt. Conception	'0-10	7	12	20				3465.24		185888.12			
2010-12	South of Pt. Conception	'>10	7	14	28				2026.26		128380.68			
2010-12	TOTALS*			576	752	Yelloweye rockfish	Yelloweye rockfish	1413	169975	0.008	2650174	22024.50	--	8872

Canary Rockfish

Years	Area	DepthBin.fm	No.vessels	No.trips	No.sets	Grouping	Species	ObservedDiscard.lbs	ObservedRetained.lbs	DiscardRatio	TotalLandings.lbs	GrossDiscard.lbs	MortalityRate	DiscardMortality.lbs
2013-14	North of 42.0 N OR-CA line	'0-10	60	163	181	Canary rockfish	Canary Rockfish	175.1	27343.13	0.01	370090.01	2369.98	0.32	758.39
2013-14	North of 42.0 N OR-CA line	'10-20	62	230	261	Canary rockfish	Canary Rockfish	567.31	41705.69	0.01	514358.13	6996.66	0.54	3778.2
2013-14	North of 42.0 N OR-CA line	'>20	16	18	18	Canary rockfish	Canary Rockfish	90.9	3082.68	0.03	29582.26	872.3	1	872.3
2013-14	OR-CA line to 4010 Mgmt Line	'0-10	6	17	24	Canary rockfish	Canary Rockfish	52.9	7962.58	0.01	58399.86	387.98	0.32	124.15
2013-14	OR-CA line to 4010 Mgmt Line	'>10	7	46	52	Canary rockfish	Canary Rockfish	187.9	16011.63	0.01	111934.15	1313.57	0.77	1011.45
2013-14	4010 Mgmt Line to Ano Nuevo, CA	'0-10	9	31	49	Canary rockfish	Canary Rockfish	13.84	2807.6	0	59762.21	294.6	0.32	94.27
2013-14	4010 Mgmt Line to Ano Nuevo, CA	'>10	11	65	85	Canary rockfish	Canary Rockfish	1603.94	8272.5	0.19	99420.86	19276.53	0.77	14842.93
2013-14	Ano Nuevo, CA to Pt. Conception	'0-10	11	26	30	Canary rockfish	Canary Rockfish	3.4	1527	0	323459.15	720.21	0.32	230.47
2013-14	Ano Nuevo, CA to Pt. Conception	'>10	14	61	70	Canary rockfish	Canary Rockfish	49.82	3788.2	0.01	141399.87	1859.6	0.77	1431.89
2013-14	South of Pt. Conception	'0-10	11	25	37	No Canary Observed			5265.91		159445.2			
2013-14	South of Pt. Conception	'10-20	8	16	18	No Canary Observed			4831.54		65791.08			
2013-14	South of Pt. Conception	'>20	3	10	10	No Canary Observed			439		15452.21			
2013-14	TOTALS*			708	835	Canary rockfish	Canary Rockfish	2745	123037	0.022	1949095	43486.59	--	23144

Yelloweye Rockfish

Years	Area	DepthBin.fm	No.vessels	No.trips	No.sets	Grouping	Species	ObservedDiscard.lbs	ObservedRetained.lbs	DiscardRatio	TotalLandings.lbs	GrossDiscard.lbs	MortalityRate	DiscardMortality.lbs
2013-14	North of 42.0 N OR-CA line	'0-10	60	163	181	Yelloweye rockfish	Yelloweye Rockfish	113.05	27343.13	0	370090.01	1530.13	0.32	489.64
2013-14	North of 42.0 N OR-CA line	'10-20	62	230	261	Yelloweye rockfish	Yelloweye Rockfish	605.21	41705.69	0.01	514358.13	7464.08	0.56	4179.89
2013-14	North of 42.0 N OR-CA line	'>20	16	18	18	Yelloweye rockfish	Yelloweye Rockfish	268.25	3082.68	0.09	29582.26	2574.2	1	2574.2
2013-14	OR-CA line to 4010 Mgmt Line	'0-10	6	17	24	Yelloweye rockfish	Yelloweye Rockfish	51.25	7962.58	0.01	58399.86	375.88	0.32	120.28
2013-14	OR-CA line to 4010 Mgmt Line	'>10	7	46	52	Yelloweye rockfish	Yelloweye Rockfish	133.4	16011.63	0.01	111934.15	932.57	0.78	727.41
2013-14	4010 Mgmt Line to Ano Nuevo, CA	'0-10	9	31	49	No Yelloweye Observed			2807.6		59762.21			
2013-14	4010 Mgmt Line to Ano Nuevo, CA	'>10	11	65	85	Yelloweye rockfish	Yelloweye Rockfish	24.85	8272.5	0	99420.86	298.65	0.78	232.95
2013-14	Ano Nuevo, CA to Pt. Conception	'0-10	11	26	30	No Yelloweye Observed			1527		323459.15			
2013-14	Ano Nuevo, CA to Pt. Conception	'>10	14	61	70	No Yelloweye Observed			3788.2		141399.87			
2013-14	South of Pt. Conception	'0-10	11	25	37	No Yelloweye Observed			5265.91		159445.2			
2013-14	South of Pt. Conception	'10-20	8	16	18	No Yelloweye Observed			4831.54		65791.08			
2013-14	South of Pt. Conception	'>20	3	10	10	No Yelloweye Observed			439		15452.21			
2013-14	TOTALS*			708	835	Yelloweye rockfish	Yelloweye rockfish	1196	123037	0.010	1949095	18946.56	--	8324

Canary Rockfish

Years	Area	DepthBin.fm	No.vessels	No.trips	No.sets	Grouping	Species	ObservedDiscard.lbs	ObservedRetained.lbs	DiscardRatio	TotalLandings.lbs	GrossDiscard.lbs	MortalityRate	DiscardMortality.lbs
2010-14	North of 42.0 N OR-CA line	'0-10	79	264	294	Canary rockfish	Canary Rockfish	390.5	75806.97	0.01	871265.48	4488.1	0.32	1436.19
2010-14	North of 42.0 N OR-CA line	'10-20	78	377	434	Canary rockfish	Canary Rockfish	1322.48	101926.08	0.01	1222160.5	15857.4	0.54	8563
2010-14	North of 42.0 N OR-CA line	'>20	20	23	23	Canary rockfish	Canary Rockfish	131.35	4047.74	0.03	67064.05	2176.24	1	2176.24
2010-14	OR-CA line to 4010 Mgmt Line	'0-10	6	25	40	Canary rockfish	Canary Rockfish	130.55	18421.16	0.01	148148.32	1049.92	0.32	335.97
2010-14	OR-CA line to 4010 Mgmt Line	'>10	7	70	84	Canary rockfish	Canary Rockfish	773.27	40815.36	0.02	299218.78	5668.87	0.77	4365.03
2010-14	4010 Mgmt Line to Ano Nuevo, CA	'0-10	16	74	129	Canary rockfish	Canary Rockfish	54.34	5576.32	0.01	141029.27	1374.3	0.32	439.78
2010-14	4010 Mgmt Line to Ano Nuevo, CA	'10-20	14	124	155	Canary rockfish	Canary Rockfish	2312.65	11777.62	0.2	152561.45	29956.93	0.54	16176.74
2010-14	4010 Mgmt Line to Ano Nuevo, CA	'>20	6	46	49	Canary rockfish	Canary Rockfish	1528.19	4233.66	0.36	54950.81	19835.13	1	19835.13
2010-14	Ano Nuevo, CA to Pt. Conception	'0-10	17	88	127	Canary rockfish	Canary Rockfish	3.4	6455.32	0	623026.73	328.15	0.32	105.01
2010-14	Ano Nuevo, CA to Pt. Conception	'10-20	19	103	123	Canary rockfish	Canary Rockfish	207.92	7003.4	0.03	420201.52	12475.13	0.54	6736.57
2010-14	Ano Nuevo, CA to Pt. Conception	'>20	5	16	16	Canary rockfish	Canary Rockfish	91.37	920.7	0.1	44556.18	4421.74	1	4421.74
2010-14	South of Pt. Conception	'0-10	12	37	57	No Canary Observed			8731.15		368654.22			
2010-14	South of Pt. Conception	'10-20	11	22	33	No Canary Observed			6526.8		144492.59			
2010-14	South of Pt. Conception	'>20	4	18	23	No Canary Observed			770		42745.49			
2010-14	TOTALS*			1287	1587	Canary rockfish	Canary Rockfish	6946	293012	0.024	4600075	109047.36	--	64591

Yelloweye Rockfish

Years	Area	DepthBin.fm	No.vessels	No.trips	No.sets	Grouping	Species	ObservedDiscard.lbs	ObservedRetained.lbs	DiscardRatio	TotalLandings.lbs	GrossDiscard.lbs	MortalityRate	DiscardMortality.lbs
2010-14	North of 42.0 N OR-CA line	'0-10	79	264	294	Yelloweye rockfish	Yelloweye Rockfish	393.97	75806.97	0.01	871265.48	4527.98	0.32	1448.95
2010-14	North of 42.0 N OR-CA line	'10-20	78	377	434	Yelloweye rockfish	Yelloweye Rockfish	1260.42	101926.08	0.01	1222160.5	15113.26	0.56	8463.43
2010-14	North of 42.0 N OR-CA line	'>20	20	23	23	Yelloweye rockfish	Yelloweye Rockfish	285.65	4047.74	0.07	67064.05	4732.72	1	4732.72
2010-14	OR-CA line to 4010 Mgmt Line	'0-10	6	25	40	Yelloweye rockfish	Yelloweye Rockfish	76.15	18421.16	0	148148.32	612.42	0.32	195.97
2010-14	OR-CA line to 4010 Mgmt Line	'>10	7	70	84	Yelloweye rockfish	Yelloweye Rockfish	535.55	40815.36	0.01	299218.78	3926.13	0.78	3062.39
2010-14	4010 Mgmt Line to Ano Nuevo, CA	'0-10	16	74	129	No Yelloweye Observed			5576.32		141029.27			
2010-14	4010 Mgmt Line to Ano Nuevo, CA	'10-20	14	124	155	Yelloweye rockfish	Yelloweye Rockfish	33.15	11777.62	0	152561.45	429.41	0.56	240.47
2010-14	4010 Mgmt Line to Ano Nuevo, CA	'>20	6	46	49	Yelloweye rockfish	Yelloweye Rockfish	15.46	4233.66	0	54950.81	200.66	1	200.66
2010-14	Ano Nuevo, CA to Pt. Conception	'0-10	17	88	127	No Yelloweye Observed			6455.32		623026.73			
2010-14	Ano Nuevo, CA to Pt. Conception	'10-20	19	103	123	Yelloweye rockfish	Yelloweye Rockfish	3	7003.4	0	420201.52	180	0.56	100.8
2010-14	Ano Nuevo, CA to Pt. Conception	'>20	5	16	16	Yelloweye rockfish	Yelloweye Rockfish	5.25	920.7	0.01	44556.18	254.07	1	254.07
2010-14	South of Pt. Conception	'0-10	12	37	57	No Yelloweye Observed			8731.15		368654.22			
2010-14	South of Pt. Conception	'10-20	11	22	33	No Yelloweye Observed			6526.8		144492.59			
2010-14	South of Pt. Conception	'>20	4	18	23	No Yelloweye Observed			770		42745.49			
2010-14	TOTALS*			1287	1587	Yelloweye rockfish	Yelloweye rockfish	2609	293012	0.009	4600075	40953.08	--	18699

Canary Rockfish

Years	Area	DepthBin.fm	No.vessels	No.trips	No.sets	Grouping	Species	ObservedDiscard.lbs	ObservedRetained.lbs	DiscardRatio	TotalLandings.lbs	GrossDiscard.lbs	MortalityRate	DiscardMortality.lbs
2011-15	North of 42.0 N OR-CA line	'0-10	90	449	501	Canary rockfish	Canary Rockfish	400.15	74766.56	0.01	910635.29	4873.71	0.32	1559.59
2011-15	North of 42.0 N OR-CA line	'10-20	90	600	696	Canary rockfish	Canary Rockfish	1526.18	114355.48	0.01	1286078.28	17163.91	0.54	9268.51
2011-15	North of 42.0 N OR-CA line	'>10	24	35	36	Canary rockfish	Canary Rockfish	131.35	4047.74	0.03	74015.26	2401.81	1	2401.81
2011-15	OR-CA line to 4010 Mgmt Line	'0-10	11	68	96	Canary rockfish	Canary Rockfish	153.75	29649.92	0.01	188169.43	975.75	0.32	312.24
2011-15	OR-CA line to 4010 Mgmt Line	'>10	10	155	187	Canary rockfish	Canary Rockfish	973.95	51838.6	0.02	370444.53	6959.96	0.77	5359.17
2011-15	4010 Mgmt Line to Ano Nuevo, CA	'0-10	15	79	144	Canary rockfish	Canary Rockfish	56.64	6388.52	0.01	148462.55	1316.26	0.32	421.2
2011-15	4010 Mgmt Line to Ano Nuevo, CA	'10-20	14	151	201	Canary rockfish	Canary Rockfish	3413.58	16299.81	0.21	168406.86	35268.54	0.54	19045.01
2011-15	4010 Mgmt Line to Ano Nuevo, CA	'>10	6	39	42	Canary rockfish	Canary Rockfish	1076.86	2687.53	0.4	59009.24	23644.29	1	23644.29
2011-15	Ano Nuevo, CA to Pt. Conception	'0-10	20	106	136	Canary rockfish	Canary Rockfish	6.65	8855.12	0	686739.55	515.73	0.32	165.03
2011-15	Ano Nuevo, CA to Pt. Conception	'10-20	22	126	145	Canary rockfish	Canary Rockfish	146.75	9486.08	0.02	446496.73	6907.32	0.54	3729.95
2011-15	Ano Nuevo, CA to Pt. Conception	'>10	4	14	14	Canary rockfish	Canary Rockfish	6.27	487	0.01	48977.49	630.57	1	630.57
2011-15	South of Pt. Conception	'0-10	12	49	71	No Canary Observed			11737.95		370089.9			
2011-15	South of Pt. Conception	'10-20	13	33	45	No Canary Observed			8413.65		151413.16			
2011-15	South of Pt. Conception	'>10	4	19	23	No Canary Observed			475		44936.14			
2011-15	TOTALS*			1923	2337	Canary rockfish	Canary Rockfish	7892	339489	0.023	4953874	115163.16	--	66537

Yelloweye Rockfish

Years	Area	DepthBin.fm	No.vessels	No.trips	No.sets	Grouping	Species	ObservedDiscard.lbs	ObservedRetained.lbs	DiscardRatio	TotalLandings.lbs	GrossDiscard.lbs	MortalityRate	DiscardMortality.lbs
2011-15	North of 42.0 N OR-CA line	'0-10	90	449	501	Yelloweye rockfish	Yelloweye Rockfish	410.07	74766.56	0.01	910635.29	4994.53	0.32	1598.25
2011-15	North of 42.0 N OR-CA line	'10-20	90	600	696	Yelloweye rockfish	Yelloweye Rockfish	1924.04	114355.48	0.02	1286078.28	21638.37	0.56	12117.49
2011-15	North of 42.0 N OR-CA line	'>20	24	35	36	Yelloweye rockfish	Yelloweye Rockfish	285.65	4047.74	0.07	74015.26	5223.27	1	5223.27
2011-15	OR-CA line to 4010 Mgmt Line	'0-10	11	68	96	Yelloweye rockfish	Yelloweye Rockfish	76.15	29649.92	0	188169.43	483.28	0.32	154.65
2011-15	OR-CA line to 4010 Mgmt Line	'>10	10	155	187	Yelloweye rockfish	Yelloweye Rockfish	558.55	51838.6	0.01	370444.53	3991.46	0.78	3113.34
2011-15	4010 Mgmt Line to Ano Nuevo, CA	'0-10	15	79	144	No Yelloweye Observed			6388.52		148462.55			
2011-15	4010 Mgmt Line to Ano Nuevo, CA	'10-20	14	151	201	Yelloweye rockfish	Yelloweye Rockfish	36.4	16299.81	0	168406.86	376.08	0.56	210.6
2011-15	4010 Mgmt Line to Ano Nuevo, CA	'>20	6	39	42	Yelloweye rockfish	Yelloweye Rockfish	9.01	2687.53	0	59009.24	197.83	1	197.83
2011-15	Ano Nuevo, CA to Pt. Conception	'0-10	20	106	136	No Yelloweye Observed			8855.12		686739.55			
2011-15	Ano Nuevo, CA to Pt. Conception	'10-20	22	126	145	Yelloweye rockfish	Yelloweye Rockfish	1.75	9486.08	0	446496.73	82.37	0.56	46.13
2011-15	Ano Nuevo, CA to Pt. Conception	'>20	4	14	14	No Yelloweye Observed			487		48977.49			
2011-15	South of Pt. Conception	'0-10	12	49	71	No Yelloweye Observed			11737.95		370089.9			
2011-15	South of Pt. Conception	'10-20	13	33	45	No Yelloweye Observed			8413.65		151413.16			
2011-15	South of Pt. Conception	'>20	4	19	23	No Yelloweye Observed			475		44936.14			
2011-15	TOTALS*			1923	2337	Yelloweye rockfish	Yelloweye rockfish	3302	339489	0.010	4953874	48177.74	--	22662

Canary Rockfish

Years	Area	DepthBin.fm	No.vessels	No.trips	No.sets	Grouping	Species	ObservedDiscard.lbs	ObservedRetained.lbs	DiscardRatio	TotalLandings.lbs	GrossDiscard.lbs	MortalityRate	DiscardMortality.lbs
2015	North of 42.0 N OR-CA line	'0-10	39	75	85	Canary rockfish	Canary Rockfish	50.5	12949.91	0	204404.04	797.1	0.32	255.07
2015	North of 42.0 N OR-CA line	'>10	41	122	152	Canary rockfish	Canary Rockfish	293.9	27674.09	0.01	286724.76	3045.03	0.77	2344.67
2015	OR-CA line to 4010 Mgmt Line	'0-10	6	28	29	Canary rockfish	Canary Rockfish	38	13804.76	0	84603.59	232.89	0.32	74.52
2015	OR-CA line to 4010 Mgmt Line	'>10	7	49	58	Canary rockfish	Canary Rockfish	289.48	18112.24	0.02	157552.27	2518.09	0.77	1938.93
2015	4010 Mgmt Line to Ano Nuevo, CA	'0-10	6	9	19	Canary rockfish	Canary Rockfish	2.3	984.2	0	34765.28	81.24	0.32	26
2015	4010 Mgmt Line to Ano Nuevo, CA	'>10	9	42	71	Canary rockfish	Canary Rockfish	1152.95	5384.05	0.21	55052.94	11789.13	0.77	9077.63
2015	Ano Nuevo, CA to Pt. Conception	'0-10	9	31	31	Canary rockfish	Canary Rockfish	3.25	3580	0	198360.43	180.08	0.32	57.62
2015	Ano Nuevo, CA to Pt. Conception	'>10	13	33	33	Canary rockfish	Canary Rockfish	31.1	3196	0.01	81198.97	790.14	0.77	608.41
2015	South of Pt. Conception	'0-10	7	14	19	No Canary Observed			3718.8		60110.61			
2015	South of Pt. Conception	'>10	6	13	17	No Canary Observed			1886.85		53648.99			
2015	TOTALS*			416	514	Canary rockfish	Canary Rockfish	1861	91291	0.020	1216422	24803.62	--	14383

Yelloweye Rockfish

Years	Area	DepthBin.fm	No.vessels	No.trips	No.sets	Grouping	Species	ObservedDiscard.lbs	ObservedRetained.lbs	DiscardRatio	TotalLandings.lbs	GrossDiscard.lbs	MortalityRate	DiscardMortality.lbs
2015	North of 42.0 N OR-CA line	'0-10	39	75	85	Yelloweye rockfish	Yelloweye Rockfish	18.6	12949.91	0	204404.04	293.59	0.32	93.95
2015	North of 42.0 N OR-CA line	'>10	41	122	152	Yelloweye rockfish	Yelloweye Rockfish	676.97	27674.09	0.02	286724.76	7013.93	0.78	5470.86
2015	OR-CA line to 4010 Mgmt Line	'0-10	6	28	29	No Yelloweye Observed			13804.76		84603.59			
2015	OR-CA line to 4010 Mgmt Line	'>10	7	49	58	Yelloweye rockfish	Yelloweye Rockfish	23	18112.24	0	157552.27	200.07	0.78	156.05
2015	4010 Mgmt Line to Ano Nuevo, CA	'0-10	6	9	19	No Yelloweye Observed			984.2		34765.28			
2015	4010 Mgmt Line to Ano Nuevo, CA	'>10	9	42	71	Yelloweye rockfish	Yelloweye Rockfish	3.25	5384.05	0	55052.94	33.23	0.78	25.92
2015	Ano Nuevo, CA to Pt. Conception	'0-10	9	31	31	No Yelloweye Observed			3580		198360.43			
2015	Ano Nuevo, CA to Pt. Conception	'>10	13	33	33	No Yelloweye Observed			3196		81198.97			
2015	South of Pt. Conception	'0-10	7	14	19	No Yelloweye Observed			3718.8		60110.61			
2015	South of Pt. Conception	'>10	6	13	17	No Yelloweye Observed			1886.85		53648.99			
2015	TOTALS*			416	514	Yelloweye rockfish	Yelloweye rockfish	722	91291	0.008	1216422	9618.02	--	5747