

**2021 AND 2022 GROUND FISH HARVEST SPECIFICATIONS UNDER DEFAULT  
HARVEST CONTROL RULES**

The following tables were downloaded from the Pacific Fisheries Information Network (PacFIN) on September 13, 2019 at approximately 1200 hours. These tables are available on the PacFIN web site under the [APEX reporting system](#). These tables will be updated as corrections are made and consistent with PFMC decisions on 2021 and 2022 groundfish harvest specifications.

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**Table 1. 2021 harvest specifications (mt) and stock category designations for west coast groundfish stocks and stock complexes under default harvest control rules (specifications not yet available for highlighted stocks).**

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Yelloweye Rockfish	CW	1 (Year Based)	0.40 (0.144)	97	83	50	2017	The ACL is based on projections in the <a href="#">2017 yelloweye rebuilding analysis</a> using an SPR harvest rate of 65%.
Arrowtooth Flounder	CW	2 (Year Based)	0.40 (0.267)	13551	9933	9933	2017	
Big Skate	CW	2 (Year Based)	0.45 (0.126)	1690	1477	1477	2019	
Black Rockfish	WA	1 (Year Based)	0.45 (0.083)	319	293	293	2015	
Black Rockfish	CA	1 (Year Based)	0.45 (0.083)	379	348	348	2015	
Bocaccio	S of 4010	1 (Year Based)	0.45 (0.074)	1887	1748	1748	2017	7.4% of the assessed area (Conception area N to Cape Blanco) OFL is deducted to account for the portion of the stock north of 40°10' N lat.
Cabazon	CA			225	210	210		
Cabazon	3427 - 42	1 (Year Based)	0.45 (0.065)	201.8	188.7	188.7	2019	
Cabazon	S of Conc	1 (Year Based)	0.45 (0.065)	23.3	21.79	21.79	2019	
Cabazon/Kelp Greenling	WA			25	20	20		
Cabazon	WA	3 (Year Based)	0.45 (0.222)	18.3	14.24	14.24	2019	
Kelp Greenling	WA	3 (Year Based)	0.45 (0.222)	7.1	5.52	5.52	2015	
Cabazon/Kelp Greenling	OR			215	198	198		
Cabazon	OR	1 (Year Based)	0.45 (0.065)	58.3	54.51	54.51	2019	
Kelp Greenling	OR	1 (Year Based)	0.45 (0.083)	157	143.97	143.97	2015	
California Scorpionfish	CW	CA Scorpionfish (Year Based)	0.45 (0.086)	319	291	291	2017	
Canary Rockfish	CW	1 (Year Based)	0.45 (0.083)				2015	Spex not yet available
Chilipepper	S of 4010	1 (Year Based)	0.45 (0.083)	2571	2358	2358	2015	93% of the coastwide chilipepper OFL is apportioned S of 40°10' N lat. based on average historical landings.
Cowcod	S of 4010			114	98	98		
Cowcod	S of Conc	2 (Year Based)	0.45 (0.126)	95	83.03	83.03	2019	
Cowcod	3427 - 4010	3 (Year Based)	0.45 (0.222)	18.9	14.7	14.7	2019	
Darkblotched Rockfish	CW	1 (Year Based)	0.45 (0.074)	953	882	882	2017	
Dover Sole	CW	1 (Year Based)	0.45 (0.100)	93547	84192	50000	2011	

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
English Sole	CW	2 (Year Based)	0.45 (0.174)				2013	More information needed before the SSC can endorse OFLs.
Lingcod	N of 4010	1 (Year Based)	0.45 (0.074)	5816	5386	5369	2017	OFLs are projected from the 2017 assessment, which assessed two stocks north and south of 42° N lat. The relative biomass and OFLs are reapportioned north and south of the 40°10' N lat. management line by using the most recent 5-year average percentage of survey biomass of lingcod between 40°10' and 42° N lat., which is 21.3% of the survey biomass in California.
Lingcod	S of 4010	1 (Year Based)	0.45 (0.074)	1255	1162	1102	2017	OFLs are projected from the 2017 assessment, which assessed two stocks north and south of 42° N lat. The relative biomass and OFLs are reapportioned north and south of the 40°10' N lat. management line by using the most recent 5-year average percentage of survey biomass of lingcod between 40°10' and 42° N lat., which is 21.3% of the survey biomass in California.
Longnose Skate	CW	2 (Year Based)	0.45 (0.126)	2086	1823	1823	2019	
Longspine Thornyhead	CW	2 (Year Based)	0.40 (0.320)	5097	3466		2013	
Longspine Thornyhead	N of Conc	2 (Year Based)	0.40 (0.320)			2634	2013	ACLs are determined based on an apportionment of the coastwide ABC north (76%) and south (24%) of 34°27' N lat. based on the 2003-2012 average swept area biomass estimated north and south of Pt. Conception at 34°27' N lat. in the NWFSC trawl survey.
Longspine Thornyhead	S of Conc	2 (Year Based)	0.40 (0.320)			832	2013	ACLs are determined based on an apportionment of the coastwide ABC north (76%) and south (24%) of 34°27' N lat. based on the 2003-2012 average swept area biomass estimated north and south of Pt. Conception at 34°27' N lat. in the NWFSC trawl survey.
Pacific Cod	CW	3 (Year Based)	0.40 (0.398)	3200	1926	1600		
Pacific Ocean Perch	N of 4010	2 (Year Based)	0.45 (0.143)	4497	3854	3854	2017	
Petrale Sole	CW	1 (Year Based)	0.45 (0.065)	4402	4115	4115	2019	
Sablefish	CW	1 (Year Based)	0.40 (0.127)	9402	8208		2019	
Sablefish	N of 36	1 (Year Based)	0.40 (0.127)			6049	2019	The ACLs are apportioned north (73.7%) and south (26.3%) of 40°10' N lat. using the coastwide ABCs

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
								based on average trawl survey biomass from 2003-2018.
Sablefish	Conc	1 (Year Based)	0.40 (0.127)			2159	2019	The ACLs are apportioned north (73.7%) and south (26.3%) of 36° using the coastwide ABCs based on average trawl survey biomass from 2003-2018.
Shortbelly	CW	3 (Year Based)	0.40 (0.398)	6950	4184	4184	2007	
Shortspine Thornyhead	CW	2 (Year Based)	0.40 (0.320)				2013	Spex not yet available.
Shortspine Thornyhead	N of Conc	2 (Year Based)	0.40 (0.320)				2013	Spex not yet available.
Shortspine Thornyhead	S of Conc	2 (Year Based)	0.40 (0.320)				2013	Spex not yet available.
Spiny Dogfish	CW	2 (Year Based)	0.40 (0.346)	2479	1621	1621	2011	
Splitnose	S of 4010	1 (Year Based)	0.45 (0.108)	1868	1666	1666	2009	
Starry Flounder	CW	3 (Year Based)	0.40 (0.398)	652	392	392	2017	
Widow Rockfish	CW	1 (Year Based)	0.45 (0.065)	15749	14725	14725	2019	
Yellowtail Rockfish	N of 4010	1 (Year Based)	0.45 (0.074)	6534	6050	6050	2017	
Blue/Deacon/Black Rockfish	OR		0.45 (0.044)	676	570	570		
Black Rockfish	OR	2 (Year Based)	0.45 (0.159)	570	479.37	479.37	2015	
Blue	OR	2 (Year Based)	0.45 (0.143)	105.7	90.58	90.58	2017	
Nearshore Rockfish North	N of 4010			92	77	77		
Black and Yellow	N of 4010	3 (Year Based)	0.45 (0.222)	0.014	0.011	0.011		
Blue	42 - 4010	2 (Year Based)	0.45 (0.143)	33.4	28.62	28.62	2017	10% of the CA OFL N of 34°27' N lat. is apportioned north of 40°10' N lat. (see Appendix D of the 2017 Assessment).
Blue	WA	3 (Year Based)	0.45 (0.222)	8.1	6.30	6.30	2017	
Brown	N of 4010	2 (Year Based)	0.45 (0.174)				2013	The portion of the coastwide stock north of 40° 10 N lat. (1.2%) based on the proportion of cumulative removals by area during 1916-2012. Spex not yet available.
Calico	N of 4010	3 (Year Based)	0.45 (0.222)					

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
China	WA	2 (Year Based)	0.45 (0.159)	10.82	9.10	9.10	2015	OFLs are projected from the Northern Model in the 2015 assessment.
China	4010 - 4616	2 (Year Based)	0.45 (0.159)	21.57	18.14	18.14	2015	OFLs are projected from the Central Model in the 2015 assessment.
Copper	N of 4010	2 (Year Based)	0.45 (0.174)	9.82	8.11	8.11	2013	7.3% of the OFL estimated from the Northern Model (34°27' N lat. to U.S.-Can border) is apportioned N of 40°10' N lat. based on the proportion of cumulative removals by area during 1916-2012.
Gopher	N of 4010	3 (Year Based)	0.45 (0.222)				2011	
Grass	N of 4010	3 (Year Based)	0.45 (0.222)	0.66	0.51	0.51	2011	
Kelp	N of 4010	3 (Year Based)	0.45 (0.222)	0.009	0.007	0.007	2011	
Olive	N of 4010	3 (Year Based)	0.45 (0.222)	0.315	0.245	0.245	2011	
Quillback	N of 4010	3 (Year Based)	0.45 (0.222)	7.37	5.74	5.74	2011	
Treefish	N of 4010	3 (Year Based)	0.45 (0.222)	0.217	0.168	0.168	2011	
Nearshore Rockfish South	S of 4010			1052	868	867		
Blue	4010 - 3427	2 (Year Based)	0.45 (0.143)	300.6	257.61	257.61	2017	90% of the CA OFL N of 34°27' N lat. is apportioned south of 40°10' N lat. (see Appendix D of the 2017 Assessment).
Blue	S of Conc	3 (Year Based)	0.45 (0.222)	21.8	16.96	16.96	2017	
Brown	S of 4010	2 (Year Based)	0.45 (0.174)				2013	The portion of the coastwide stock north of 40°10' N lat. (98.8%) based on the proportion of cumulative removals by area during 1916-2012. Spex not yet available.
Calico	S of 4010	3 (Year Based)	0.45 (0.222)					
China	S of 4010	2 (Year Based)	0.45 (0.159)	15.46	13.00	12.22	2015	OFLs are projected from the Southern Model in the 2015 assessment.
Copper	S of 4010	2 (Year Based)	0.45 (0.174)	247.43	204.38	204.38	2013	92.7% of the OFL estimated from the Northern Model (34°27' N lat. to U.S.-Can border) is apportioned S of 40°10' N lat. based on the proportion of cumulative removals by area during 1916-2012.

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Gopher	S of 4010	2 (Year Based)	0.45 (0.126)	136	118.86	118.86	2019	Need to code the species as Gopher/Black-and-Yellow.
Grass	S of 4010	3 (Year Based)	0.45 (0.222)	59.63	46.39	46.39	2011	
Kelp	S of 4010	3 (Year Based)	0.45 (0.222)	27.66	21.52	21.52	2011	
Olive	S of 4010	3 (Year Based)	0.45 (0.222)	224.64	174.77	174.77	2011	
Quillback	S of 4010	3 (Year Based)	0.45 (0.222)	5.39	4.19	4.19	2011	
Treefish	S of 4010	3 (Year Based)	0.45 (0.222)	13.23	10.29	10.29	2011	
Other Fish	CW			286	223	223		
Kelp Greenling	CA	3 (Year Based)	0.45 (0.222)	118.9	92.50	92.50	2011	
Leopard Shark	CW	3 (Year Based)	0.45 (0.222)	167.1	130	130	2011	
Other Flatfish	CW			7714	4802	4802		
Butter Sole	CW	3 (Year Based)	0.40 (0.398)	4.63	2.79	2.7879		Based on the average catch during 1994-1998 + a 60% discard rate estimated from the EDCP study.
Curlfin Sole	CW	3 (Year Based)	0.40 (0.398)	8.24	4.96	4.96		Based on the average catch during 1994-1998 + a 60% discard rate estimated from the EDCP study.
Flathead Sole	CW	3 (Year Based)	0.40 (0.398)	35	21.07	21.07		Max. catch = 35 mt in 2005
Pacific Sanddab	CW	3 (Year Based)	0.40 (0.398)	4801	2890.20	2890.20	2011	
Rex Sole	CW	2 (Year Based)	0.40 (0.320)	2025.61	1377.42	1377.42	2013	Bayesian projections differ from the calculated ABCs.
Rock Sole	CW	3 (Year Based)	0.40 (0.398)	66.7	40.15	40.15	2011	
Sand Sole	CW	3 (Year Based)	0.40 (0.398)	773.2	465.47	465.47	2011	
Shelf Rockfish North	N of 4010			1888	1511	1511		
Bocaccio	N of 4010	3 (Year Based)	0.45 (0.222)	284	220.95	220.95	2011	
Bronzespotted	N of 4010	3 (Year Based)	0.45 (0.222)					
Chameleon	N of 4010	3 (Year Based)	0.45 (0.222)					
Chilipepper	N of 4010	1 (Year Based)	0.45 (0.083)	193.55	177.49	177.49	2015	7% of the coastwide chilipepper OFL is apportioned N of 40°10' N lat. based on average historical landings.
Cowcod	N of 4010	3 (Year Based)	0.45 (0.222)	0.57	0.44	0.44	2019	
Flag	N of 4010	3 (Year Based)	0.45 (0.222)	0.1	0.078	0.078	2011	

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Freckled	N of 4010	3 (Year Based)	0.45 (0.222)					
Greenblotched	N of 4010	3 (Year Based)	0.45 (0.222)	1.3	1.01	1.01	2011	
Greenspotted	42 - 4010	2 (Year Based)	0.45 (0.190)	9.3	7.53	7.34	2011	The OFLs projected from the Northern California Model are apportioned north (22.2%) and south (77.8%) of 40°10' N lat. based on average historical (1978-2001) landings.
Greenspotted	WA - OR	3 (Year Based)	0.45 (0.222)	6.1	4.75	4.75	2011	
Greenstriped	N of 4010	2 (Year Based)	0.45 (0.205)	896.12	712.42	712.42	2009	The portion of the coastwide stock north of 40°10' N. lat. (84.5%) is based on the mean of the 2003-2008 swept area biomass estimates from the NMFS trawl survey.
Halfbanded	N of 4010	3 (Year Based)	0.45 (0.222)					
Harlequin	N of 4010	3 (Year Based)	0.45 (0.222)					
Honeycomb	N of 4010	3 (Year Based)	0.45 (0.222)					
Mexican	N of 4010	3 (Year Based)	0.45 (0.222)					
Pink	N of 4010	3 (Year Based)	0.45 (0.222)	0.004	0.003	0.003	2011	
Pinkrose	N of 4010	3 (Year Based)	0.45 (0.222)					
Puget Sound	N of 4010	3 (Year Based)	0.45 (0.222)					
Pygmy	N of 4010	3 (Year Based)	0.45 (0.222)					
Redstripe	N of 4010	3 (Year Based)	0.45 (0.222)	269.9	209.98	209.98	2011	
Rosethorn	N of 4010	3 (Year Based)	0.45 (0.222)	12.9	10.04	10.04	2011	
Rosy	N of 4010	3 (Year Based)	0.45 (0.222)	3	2.33	2.33	2011	
Silvergray	N of 4010	3 (Year Based)	0.45 (0.222)	159.4	124.01	124.01	2011	

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Speckled	N of 4010	3 (Year Based)	0.45 (0.222)	0.2	0.16	0.16	2011	
Squarespot	N of 4010	3 (Year Based)	0.45 (0.222)	0.2	0.156	0.156	2011	
Starry	N of 4010	3 (Year Based)	0.45 (0.222)	0.0037	0.0029	0.0029	2011	
Stripetail	N of 4010	3 (Year Based)	0.45 (0.222)	40.4	31.43	31.43	2011	
Swordspine	N of 4010	3 (Year Based)	0.45 (0.222)	0.0001	0.0001	0.0001	2011	
Tiger	N of 4010	3 (Year Based)	0.45 (0.222)	1.0	0.78	0.78	2011	
Vermilion	N of 4010	3 (Year Based)	0.45 (0.222)	9.7	7.55	7.55	2011	
Shelf Rockfish South	S of 4010			1842	1439	1438		
Bronzespotted	S of 4010	3 (Year Based)	0.45 (0.222)	3.6	2.80	2.80	2011	
Chameleon	S of 4010	3 (Year Based)	0.45 (0.222)					
Flag	S of 4010	3 (Year Based)	0.45 (0.222)	23.4	18.21	18.21	2011	
Freckled	S of 4010	3 (Year Based)	0.45 (0.222)					
Greenblotched	S of 4010	3 (Year Based)	0.45 (0.222)	23.1	17.97	17.97	2011	
Greenspotted	4010 - 3427	2 (Year Based)	0.45 (0.190)	32.58	26.39	25.71	2011	The OFLs projected from the Northern California Model are apportioned north (22.2%) and south (77.8%) of 40°10' N lat. based on average historical (1978-2001) landings.
Greenspotted	S of Conc	2 (Year Based)	0.45 (0.190)	45.4	36.8	36.8	2011	
Greenstriped	S of 4010	2 (Year Based)	0.45 (0.205)	164.38	130.68	130.68	2009	The portion of the coastwide stock south of 40°10' N. lat. (15.5%) is based on the mean of the 2003-2008 swept area biomass estimates from the NMFS trawl survey.
Halfbanded	S of 4010	3 (Year Based)	0.45 (0.222)					
Harlequin	S of 4010	3 (Year Based)	0.45 (0.222)					
Honeycomb	S of 4010	3 (Year Based)	0.45 (0.222)	9.9	7.70	7.70	2011	
Mexican	S of 4010	3 (Year Based)	0.45 (0.222)	5.1	3.97	3.97	2011	
Pink	S of 4010	3 (Year Based)	0.45 (0.222)	2.5	1.95	1.95	2011	



Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Pinkrose	S of 4010	3 (Year Based)	0.45 (0.222)					
Pygmy	S of 4010	3 (Year Based)	0.45 (0.222)					
Redstripe	S of 4010	3 (Year Based)	0.45 (0.222)	0.5	0.39	0.39	2011	
Rosethorn	S of 4010	3 (Year Based)	0.45 (0.222)	2.1	1.634	1.634	2011	
Rosy	S of 4010	3 (Year Based)	0.45 (0.222)	44.5	34.62	34.62	2011	
Silvergray	S of 4010	3 (Year Based)	0.45 (0.222)	0.5	0.39	0.39	2011	
Speckled	S of 4010	3 (Year Based)	0.45 (0.222)	39.4	30.65	30.65	2011	
Squarespot	S of 4010	3 (Year Based)	0.45 (0.222)	11.1	8.64	8.64	2011	
Starry	S of 4010	3 (Year Based)	0.45 (0.222)	62.6	48.70	48.70	2011	
Stripetail	S of 4010	3 (Year Based)	0.45 (0.222)	23.6	18.36	18.36	2011	
Swordspine	S of 4010	3 (Year Based)	0.45 (0.222)	14.2	11.05	11.05	2011	
Tiger	S of 4010	3 (Year Based)	0.45 (0.222)	0.04	0.031	0.031	2011	
Vermilion	S of 4010	3 (Year Based)	0.45 (0.222)	269.3	209.52	209.52	2011	
Yellowtail Rockfish	S of 4010	3 (Year Based)	0.45 (0.222)	1064.4	828.10	828.10	2011	
Slope Rockfish North	N of 4010			1862	1595	1595		
Aurora	N of 4010	1 (Year Based)	0.45 (0.091)	17.5	15.91	15.91	2013	The portion of the coastwide stock north of 40°10' N lat. (19%) is based on average survey biomass.
Bank	N of 4010	3 (Year Based)	0.45 (0.222)	17.2	13.38	13.38	2011	
Blackgill Rockfish	N of 4010	3 (Year Based)	0.45 (0.222)	4.7	3.66	3.66	2011	
Redbanded	N of 4010	3 (Year Based)	0.45 (0.222)	45.3	35.24	35.24	2011	
Rougheye/Blackspotted	N of 4010	2 (Year Based)	0.45 (0.174)	232.26	191.85	191.85	2013	98% of the coastwide OFL is apportioned north of 40°10' N. lat. based on average landings during 1985-2012.
Sharpchin	N of 4010	2 (Year Based)	0.45 (0.174)	292.30	241.44	241.44	2013	80% of coastwide OFL is apportioned to the N of 40°10' N lat. Bayesian projections differ from the calculated ABCs.
Shortraker	N of 4010	3 (Year Based)	0.45 (0.222)	18.7	14.55	14.55	2011	
Splitnose	N of 4010	1 (Year Based)	0.45 (0.108)	1041.77	929.26	929.26	2009	

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Yellowmouth	N of 4010	3 (Year Based)	0.45 (0.222)	192.4	149.69	149.69	2011	
Slope Rockfish South	S of 4010			873	709	709		
Aurora	S of 4010	1 (Year Based)	0.45 (0.091)	74.5	67.72	67.72	2013	The portion of the coastwide stock south of 40°10' N lat. (81%) is based on average survey biomass.
Bank	S of 4010	3 (Year Based)	0.45 (0.222)	503.2	391.49	391.49	2011	
Blackgill Rockfish	S of 4010	2 (Year Based)	0.45 (0.143)	206	176.54	176.54	2017	
Pacific Ocean Perch	S of 4010	3 (Year Based)	0.45 (0.222)					
Redbanded	S of 4010	3 (Year Based)	0.45 (0.222)	10.4	8.09	8.09	2011	
Rougheye/Blackspotted	S of 4010	2 (Year Based)	0.45 (0.174)	4.74	3.92	3.92	2013	2% of the coastwide OFL is apportioned south of 40°10' N. lat. based on average landings during 1985-2012.
Sharpchin	S of 4010	2 (Year Based)	0.45 (0.174)	73.1	60.4	60.4	2013	20% of coastwide OFLs are apportioned S of 40°10' N lat. Bayesian projections differ from the calculated ABCs.
Shortraker	S of 4010	3 (Year Based)	0.45 (0.222)	0.1	0.078	0.078	2011	
Yellowmouth	S of 4010	3 (Year Based)	0.45 (0.222)	0.8	0.622	0.622	2011	

**Table 2. 2022 harvest specifications (mt) and stock category designations for west coast groundfish stocks and stock complexes under default harvest control rules (specifications not yet available for highlighted stocks).**

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Yelloweye Rockfish	CW	1 (Year Based)	0.40 (0.152)	98	83	51	2017	The ACL is based on projections in the <a href="#">2017 yelloweye rebuilding analysis</a> using an SPR harvest rate of 65%.
Arrowtooth Flounder	CW	2 (Year Based)	0.40 (0.281)	11764	8458	8458	2017	
Big Skate	CW	2 (Year Based)	0.45 (0.135)	1606	1389	1389	2019	
Black Rockfish	WA	1 (Year Based)	0.45 (0.087)	319	291	291	2015	
Black Rockfish	CA	1 (Year Based)	0.45 (0.087)	373	341	341	2015	
Bocaccio	S of 4010	1 (Year Based)	0.45 (0.078)	1870	1724	1724	2017	7.4% of the assessed area (Conception area N to Cape Blanco) OFL is deducted to account for the portion of the stock north of 40°10' N lat.
Cabazon	CA			210	195	195		
Cabazon	3427 - 42	1 (Year Based)	0.45 (0.070)	187.6	174.5	174.5	2019	
Cabazon	S of Conc	1 (Year Based)	0.45 (0.070)	22.6	21.0	21.0	2019	
Cabazon/Kelp Greenling	WA			22	17	17		
Cabazon	WA	3 (Year Based)	0.45 (0.222)	14.9	11.59	11.59	2019	
Kelp Greenling	WA	3 (Year Based)	0.45 (0.222)	7.1	5.52	5.52	2015	
Cabazon/Kelp Greenling	OR			208	190	190		
Cabazon	OR	1 (Year Based)	0.45 (0.070)	56.1	52.2	52.2	2019	
Kelp Greenling	OR	1 (Year Based)	0.45 (0.087)	151.4	138.2	138.2	2015	
California Scorpionfish	CW	CA Scorpionfish (Year Based)	0.45 (0.091)	303	275	275	2017	
Canary Rockfish	CW	1 (Year Based)	0.45 (0.087)				2015	Spex not yet available

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Chilipepper	S of 4010	1 (Year Based)	0.45 (0.087)	2474	2259	2259	2015	93% of the coastwide chilipepper OFL is apportioned S of 40°10' N lat. based on average historical landings.
Cowcod	S of 4010			113	96	96		
Cowcod	S of Conc	2 (Year Based)	0.45 (0.135)	93.9	81.2	81.2	2019	
Cowcod	3427 - 4010	3 (Year Based)	0.45 (0.222)	19.2	14.9	14.9	2019	
Darkblotched Rockfish	CW	1 (Year Based)	0.45 (0.078)	901	831	831	2017	
Dover Sole	CW	1 (Year Based)	0.45 (0.104)	87540	78436	50000	2011	
English Sole	CW	2 (Year Based)	0.45 (0.182)				2013	More information needed before the SSC can endorse OFLs.
Lingcod	N of 4010	1 (Year Based)	0.45 (0.078)	5395	4974	4958	2017	OFLs are projected from the 2017 assessment, which assessed two stocks north and south of 42° N lat. The relative biomass and OFLs are reapportioned north and south of the 40°10' N lat. management line by using the most recent 5-year average percentage of survey biomass of lingcod between 40°10' and 42° N lat., which is 21.3% of the survey biomass in California.
Lingcod	S of 4010	1 (Year Based)	0.45 (0.078)	1334	1230	1172	2017	OFLs are projected from the 2017 assessment, which assessed two stocks north and south of 42° N lat. The relative biomass and OFLs are reapportioned north and south of the 40°10' N lat. management line by using the most recent 5-year average percentage of survey biomass of lingcod between 40°10' and 42° N lat., which is 21.3% of the survey biomass in California.
Longnose Skate	CW	2 (Year Based)	0.45 (0.135)	2036	1761	1761	2019	
Longspine Thornyhead	CW	2 (Year Based)	0.40 (0.333)	4838	3227		2013	

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Longspine Thornyhead	N of Conc	2 (Year Based)	0.40 (0.333)			2452	2013	ACLs are determined based on an apportionment of the coastwide ABC north (76%) and south (24%) of 34°27' N lat. based on the 2003-2012 average swept area biomass estimated north and south of Pt. Conception at 34°27' N lat. in the NWFSC trawl survey.
Longspine Thornyhead	S of Conc	2 (Year Based)	0.40 (0.333)			774	2013	ACLs are determined based on an apportionment of the coastwide ABC north (76%) and south (24%) of 34°27' N lat. based on the 2003-2012 average swept area biomass estimated north and south of Pt. Conception at 34°27' N lat. in the NWFSC trawl survey.
Pacific Cod	CW	3 (Year Based)	0.40 (0.398)	3200	1926	1600		
Pacific Ocean Perch	N of 4010	2 (Year Based)	0.45 (0.151)	4371	3711	3711	2017	
Petrale Sole	CW	1 (Year Based)	0.45 (0.070)	3936	3660	3660	2019	
Sablefish	CW	1 (Year Based)	0.40 (0.136)	9040	7811		2019	
Sablefish	N of 36	1 (Year Based)	0.40 (0.136)			5757	2019	The ACLs are apportioned north (73.7%) and south (26.3%) of 40°10' N lat. using the coastwide ABCs based on average trawl survey biomass from 2003-2018.
Sablefish	Conc	1 (Year Based)	0.40 (0.136)			2054	2019	The ACLs are apportioned north (73.7%) and south (26.3%) of 36° using the coastwide ABCs based on average trawl survey biomass from 2003-2018.
Shortbelly	CW	3 (Year Based)	0.40 (0.398)	6950	4184	4184	2007	
Shortspine Thornyhead	CW	2 (Year Based)	0.40 (0.333)				2013	Spex not yet available.
Shortspine Thornyhead	N of Conc	2 (Year Based)	0.40 (0.333)				2013	Spex not yet available.
Shortspine Thornyhead	S of Conc	2 (Year Based)	0.40 (0.333)				2013	Spex not yet available.
Spiny Dogfish	CW	2 (Year Based)	0.40 (0.358)	2469	1585	1585	2011	

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Splitnose	S of 4010	1 (Year Based)	0.45 (0.113)	1837	1630	1630	2009	
Starry Flounder	CW	3 (Year Based)	0.40 (0.398)	652	392	392	2017	
Widow Rockfish	CW	1 (Year Based)	0.45 (0.070)	14826	13788	13788	2019	
Yellowtail Rockfish	N of 4010	1 (Year Based)	0.45 (0.078)	6324	5831	5831	2017	
Blue/Deacon/Black Rockfish	OR		0.45 (0.044)	672	562	562		
Black Rockfish	OR	2 (Year Based)	0.45 (0.167)	569	474.0	474.0	2015	
Blue	OR	2 (Year Based)	0.45 (0.151)	103.1	87.5	87.5	2017	
Nearshore Rockfish North	N of 4010			91	76	76		
Black and Yellow	N of 4010	3 (Year Based)	0.45 (0.222)	0.014	0.011	0.011		
Blue	42 - 4010	2 (Year Based)	0.45 (0.151)	33.6	28.5	28.5	2017	10% of the CA OFL N of 34°27' N lat. is apportioned north of 40°10' N lat. (see Appendix D of the 2017 Assessment).
Blue	WA	3 (Year Based)	0.45 (0.222)	7.8	6.1	6.1	2017	
Brown	N of 4010	2 (Year Based)	0.45 (0.182)				2013	The portion of the coastwide stock north of 40° 10' N lat. (1.2%) based on the proportion of cumulative removals by area during 1916-2012. Spex not yet available.
Calico	N of 4010	3 (Year Based)	0.45 (0.222)					
China	WA	2 (Year Based)	0.45 (0.167)	10.43	8.69	8.69	2015	OFLs are projected from the Northern Model in the 2015 assessment.
China	4010 - 4616	2 (Year Based)	0.45 (0.167)	21.08	17.56	17.56	2015	OFLs are projected from the Central Model in the 2015 assessment.

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Copper	N of 4010	2 (Year Based)	0.45 (0.182)	9.86	8.07	8.07	2013	7.3% of the OFL estimated from the Northern Model (34°27' N lat. to U.S.-Can border) is apportioned N of 40°10' N lat. based on the proportion of cumulative removals by area during 1916-2012.
Gopher	N of 4010	3 (Year Based)	0.45 (0.222)				2011	
Grass	N of 4010	3 (Year Based)	0.45 (0.222)	0.66	0.51	0.51	2011	
Kelp	N of 4010	3 (Year Based)	0.45 (0.222)	0.01	0.01	0.01	2011	
Olive	N of 4010	3 (Year Based)	0.45 (0.222)	0.32	0.25	0.25	2011	
Quillback	N of 4010	3 (Year Based)	0.45 (0.222)	7.37	5.74	5.74	2011	
Treefish	N of 4010	3 (Year Based)	0.45 (0.222)	0.22	0.17	0.17	2011	
Nearshore Rockfish South	S of 4010			1055	865	864		
Blue	4010 - 3427	2 (Year Based)	0.45 (0.151)	302.4	256.74	256.74	2017	90% of the CA OFL N of 34°27' N lat. is apportioned south of 40°10' N lat. (see Appendix D of the 2017 Assessment).
Blue	S of Conc	3 (Year Based)	0.45 (0.222)	21.8	16.96	16.96	2017	
Brown	S of 4010	2 (Year Based)	0.45 (0.182)				2013	The portion of the coastwide stock north of 40°10' N lat. (98.8%) based on the proportion of cumulative removals by area during 1916-2012. Spex not yet available.
Calico	S of 4010	3 (Year Based)	0.45 (0.222)					
China	S of 4010	2 (Year Based)	0.45 (0.167)	15.94	13.278	12.21	2015	OFLs are projected from the Southern Model in the 2015 assessment.
Copper	S of 4010	2 (Year Based)	0.45 (0.182)	246.98	202.03	202.03	2013	92.7% of the OFL estimated from the Northern Model (34°27' N lat. to U.S.-Can border) is apportioned S of 40°10' N lat. based on the proportion of cumulative removals by area during 1916-2012.

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Gopher	S of 4010	2 (Year Based)	0.45 (0.135)	137	118.51	118.51	2019	Need to code the species as Gopher/Black-and-Yellow.
Grass	S of 4010	3 (Year Based)	0.45 (0.222)	59.63	46.39	46.39	2011	
Kelp	S of 4010	3 (Year Based)	0.45 (0.222)	27.66	21.52	21.52	2011	
Olive	S of 4010	3 (Year Based)	0.45 (0.222)	224.64	174.77	174.77	2011	
Quillback	S of 4010	3 (Year Based)	0.45 (0.222)	5.39	4.19	4.19	2011	
Treefish	S of 4010	3 (Year Based)	0.45 (0.222)	13.23	10.29	10.29	2011	
Other Fish	CW			286	223	223		
Kelp Greenling	CA	3 (Year Based)	0.45 (0.222)	118.9	92.5	92.5	2011	
Leopard Shark	CW	3 (Year Based)	0.45 (0.222)	167.1	130.0	130.0	2011	
Other Flatfish	CW			7808	4838	4838		
Butter Sole	CW	3 (Year Based)	0.40 (0.398)	4.63	2.79	2.79		Based on the average catch during 1994-1998 + a 60% discard rate estimated from the EDCP study.
Curlfin Sole	CW	3 (Year Based)	0.40 (0.398)	8.24	4.96	4.96		Based on the average catch during 1994-1998 + a 60% discard rate estimated from the EDCP study.
Flathead Sole	CW	3 (Year Based)	0.40 (0.398)	35	21.07	21.07		Max. catch = 35 mt in 2005
Pacific Sanddab	CW	3 (Year Based)	0.40 (0.398)	4801	2890.2	2890.2	2011	
Rex Sole	CW	2 (Year Based)	0.40 (0.333)	2119.7	1413.8	1413.8	2013	Bayesian projections differ from the calculated ABCs.
Rock Sole	CW	3 (Year Based)	0.40 (0.398)	66.7	40.2	40.2	2011	
Sand Sole	CW	3 (Year Based)	0.40 (0.398)	773.2	465.5	465.5	2011	
Shelf Rockfish North	N of 4010			1821	1450	1450		
Bocaccio	N of 4010	3 (Year Based)	0.45 (0.222)	284.01	220.96	220.96	2011	



Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Bronzespotted	N of 4010	3 (Year Based)	0.45 (0.222)					
Chameleon	N of 4010	3 (Year Based)	0.45 (0.222)					
Chilipepper	N of 4010	1 (Year Based)	0.45 (0.087)	186.2	170.00	170.00	2015	7% of the coastwide chilipepper OFL is apportioned N of 40°10' N lat. based on average historical landings.
Cowcod	N of 4010	3 (Year Based)	0.45 (0.222)	0.57	0.44	0.44	2019	
Flag	N of 4010	3 (Year Based)	0.45 (0.222)	0.07	0.06	0.06	2011	
Freckled	N of 4010	3 (Year Based)	0.45 (0.222)					
Greenblotched	N of 4010	3 (Year Based)	0.45 (0.222)	1.28	0.99	0.99	2011	
Greenspotted	42 - 4010	2 (Year Based)	0.45 (0.197)	9.34	7.5	7.33	2011	The OFLs projected from the Northern California Model are apportioned north (22.2%) and south (77.8%) of 40°10' N lat. based on average historical (1978-2001) landings.
Greenspotted	WA - OR	3 (Year Based)	0.45 (0.222)	6.08	4.73	4.73	2011	
Greenstriped	N of 4010	2 (Year Based)	0.45 (0.212)	836.7	659.3	659.3	2009	The portion of the coastwide stock north of 40°10' N. lat. (84.5%) is based on the mean of the 2003-2008 swept area biomass estimates from the NMFS trawl survey.
Halfbanded	N of 4010	3 (Year Based)	0.45 (0.222)					
Harlequin	N of 4010	3 (Year Based)	0.45 (0.222)					
Honeycomb	N of 4010	3 (Year Based)	0.45 (0.222)					
Mexican	N of 4010	3 (Year Based)	0.45 (0.222)					
Pink	N of 4010	3 (Year Based)	0.45 (0.222)	0.0037	0.0029	0.0029	2011	
Pinkrose	N of 4010	3 (Year Based)	0.45 (0.222)					

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Puget Sound	N of 4010	3 (Year Based)	0.45 (0.222)					
Pygmy	N of 4010	3 (Year Based)	0.45 (0.222)					
Redstripe	N of 4010	3 (Year Based)	0.45 (0.222)	269.91	209.99	209.99	2011	
Rosethorn	N of 4010	3 (Year Based)	0.45 (0.222)	12.90	10.03	10.03	2011	
Rosy	N of 4010	3 (Year Based)	0.45 (0.222)	3.03	2.36	2.36	2011	
Silvergray	N of 4010	3 (Year Based)	0.45 (0.222)	159.42	124.03	124.03	2011	
Speckled	N of 4010	3 (Year Based)	0.45 (0.222)	0.17	0.13	0.13	2011	
Squarespot	N of 4010	3 (Year Based)	0.45 (0.222)	0.17	0.13	0.13	2011	
Starry	N of 4010	3 (Year Based)	0.45 (0.222)	0.00	0.00	0.00	2011	
Stripetail	N of 4010	3 (Year Based)	0.45 (0.222)	40.40	31.43	31.43	2011	
Swordspine	N of 4010	3 (Year Based)	0.45 (0.222)	0.00	0.00	0.00	2011	
Tiger	N of 4010	3 (Year Based)	0.45 (0.222)	0.97	0.75	0.75	2011	
Vermilion	N of 4010	3 (Year Based)	0.45 (0.222)	9.72	7.56	7.56	2011	
Shelf Rockfish South	S of 4010			1832	1429	1428		
Bronzespotted	S of 4010	3 (Year Based)	0.45 (0.222)	3.65	2.84	2.84	2011	
Chameleon	S of 4010	3 (Year Based)	0.45 (0.222)					
Flag	S of 4010	3 (Year Based)	0.45 (0.222)	23.42	18.22	18.22	2011	
Freckled	S of 4010	3 (Year Based)	0.45 (0.222)					

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Greenblotched	S of 4010	3 (Year Based)	0.45 (0.222)	23.13	18.00	18.00	2011	
Greenspotted	4010 - 3427	2 (Year Based)	0.45 (0.197)	32.72	26.27	25.71	2011	The OFLs projected from the Northern California Model are apportioned north (22.2%) and south (77.8%) of 40°10' N lat. based on average historical (1978-2001) landings.
Greenspotted	S of Conc	2 (Year Based)	0.45 (0.197)	45.54	36.57	36.57	2011	
Greenstriped	S of 4010	2 (Year Based)	0.45 (0.212)	153.48	120.94	120.94	2009	The portion of the coastwide stock south of 40°10' N. lat. (15.5%) is based on the mean of the 2003-2008 swept area biomass estimates from the NMFS trawl survey.
Halfbanded	S of 4010	3 (Year Based)	0.45 (0.222)					
Harlequin	S of 4010	3 (Year Based)	0.45 (0.222)					
Honeycomb	S of 4010	3 (Year Based)	0.45 (0.222)	9.87	7.68	7.68	2011	
Mexican	S of 4010	3 (Year Based)	0.45 (0.222)	5.05	3.93	3.93	2011	
Pink	S of 4010	3 (Year Based)	0.45 (0.222)	2.50	1.95	1.95	2011	
Pinkrose	S of 4010	3 (Year Based)	0.45 (0.222)					
Pygmy	S of 4010	3 (Year Based)	0.45 (0.222)					
Redstripe	S of 4010	3 (Year Based)	0.45 (0.222)	0.49	0.38	0.38	2011	
Rosethorn	S of 4010	3 (Year Based)	0.45 (0.222)	2.13	1.66	1.66	2011	
Rosy	S of 4010	3 (Year Based)	0.45 (0.222)	44.51	34.63	34.63	2011	
Silvergray	S of 4010	3 (Year Based)	0.45 (0.222)	0.54	0.42	0.42	2011	
Speckled	S of 4010	3 (Year Based)	0.45 (0.222)	39.38	30.64	30.64	2011	

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Squarespot	S of 4010	3 (Year Based)	0.45 (0.222)	11.10	8.64	8.64	2011	
Starry	S of 4010	3 (Year Based)	0.45 (0.222)	62.57	48.68	48.68	2011	
Stripetail	S of 4010	3 (Year Based)	0.45 (0.222)	23.62	18.38	18.38	2011	
Swordspine	S of 4010	3 (Year Based)	0.45 (0.222)	14.22	11.06	11.06	2011	
Tiger	S of 4010	3 (Year Based)	0.45 (0.222)	0.04	0.03	0.03	2011	
Vermilion	S of 4010	3 (Year Based)	0.45 (0.222)	269.28	209.50	209.50	2011	
Yellowtail Rockfish	S of 4010	3 (Year Based)	0.45 (0.222)	1064.44	828.13	828.13	2011	
Slope Rockfish North	N of 4010			1842	1568	1568		
Aurora	N of 4010	1 (Year Based)	0.45 (0.096)	17.4	15.73	15.73	2013	The portion of the coastwide stock north of 40°10' N lat. (19%) is based on average survey biomass.
Bank	N of 4010	3 (Year Based)	0.45 (0.222)	17.24	13.41	13.41	2011	
Blackgill Rockfish	N of 4010	3 (Year Based)	0.45 (0.222)	4.7	3.66	3.66	2011	
Redbanded	N of 4010	3 (Year Based)	0.45 (0.222)	45.26	35.21	35.21	2011	
Rougeye/Blackspotted	N of 4010	2 (Year Based)	0.45 (0.182)	233.24	190.79	190.79	2013	98% of the coastwide OFL is apportioned north of 40°10' N. lat. based on average landings during 1985-2012.
Sharpchin	N of 4010	2 (Year Based)	0.45 (0.182)	288.86	236.29	236.29	2013	80% of coastwide OFL is apportioned to the N of 40°10' N lat. Bayesian projections differ from the calculated ABCs.
Shortraker	N of 4010	3 (Year Based)	0.45 (0.222)	18.70	14.55	14.55	2011	
Splitnose	N of 4010	1 (Year Based)	0.45 (0.113)	1024.53	908.76	908.76	2009	
Yellowmouth	N of 4010	3 (Year Based)	0.45 (0.222)	192.45	149.72	149.72	2011	

Stock or Complex	Area	Cat.	P*	OFL	ABC	ACL	Assess Year	Notes
Slope Rockfish South	S of 4010			871	705	705		
Aurora	S of 4010	1 (Year Based)	0.45 (0.096)	74.4	67.26	67.26	2013	The portion of the coastwide stock south of 40°10' N lat. (81%) is based on average survey biomass.
Bank	S of 4010	3 (Year Based)	0.45 (0.222)	503.22	391.50	391.50	2011	
Blackgill Rockfish	S of 4010	2 (Year Based)	0.45 (0.151)	205	174.05	174.05	2017	
Pacific Ocean Perch	S of 4010	3 (Year Based)	0.45 (0.222)					
Redbanded	S of 4010	3 (Year Based)	0.45 (0.222)	10.41	8.10	8.10	2011	
Rougheye/Blackspotted	S of 4010	2 (Year Based)	0.45 (0.182)	4.76	3.89	3.89	2013	2% of the coastwide OFL is apportioned south of 40°10' N. lat. based on average landings during 1985-2012.
Sharpchin	S of 4010	2 (Year Based)	0.45 (0.182)	72.21	59.07	59.07	2013	20% of coastwide OFLs are apportioned S of 40°10' N lat. Bayesian projections differ from the calculated ABCs.
Shortraker	S of 4010	3 (Year Based)	0.45 (0.222)	0.10	0.08	0.08	2011	
Yellowmouth	S of 4010	3 (Year Based)	0.45 (0.222)	0.85	0.66	0.66	2011	