

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 9, 2019 at approximately 1400 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* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
Yelloweye Rockfish	CW	1 (Year Based)	0.40 (0.144)	97	83	50	2017	
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	188.683	188.683	2019	
Cabazon	S of Conc	1 (Year Based)	0.45 (0.065)	23.3	21.7855	21.7855	2019	
Cabazon/Kelp Greenling	WA			13	10	10		
Cabazon	WA	3 (Year Based)	0.45 (0.222)	5.52	4.2946	4.2946	2017	
Kelp Greenling	WA	3 (Year Based)	0.45 (0.222)	7.1	5.5238	5.5238	2015	
Cabazon/Kelp Greenling	OR			215	198			
Cabazon	OR	1 (Year Based)	0.45 (0.065)	58.3	54.5105	54.5105	2019	
Kelp Greenling	OR	1 (Year Based)	0.45 (0.083)	157	143.969	143.969	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 OFLL is apportioned S of 40°10' N lat. based on average historical landings.
Cowcod	S of 4010			114	15			
Cowcod	Mont	3 (Year Based)	0.45 (0.222)	18.333	14.2631	14.2631	2019	97% of the OFL N of 36° (see Appendix B of the 2019 cowcod assessment) is apportioned S of 40°10' N lat.
Cowcod	Conc	2 (Year Based)	0.45 (0.126)	95	83.03	83.03	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	
English Sole	CW	2 (Year Based)	0.45 (0.174)	4784	3952	3952	2013	

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
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)			2632.222	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)			831.228	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 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	2 (Year Based)	0.40 (0.394)	6950	4212	500	2007	
Shortspine Thornyhead	CW	2 (Year Based)	0.40 (0.320)	3211	2183		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	

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
Yellowtail Rockfish	N of 4010	1 (Year Based)	0.45 (0.074)	6534	6050	6050	2017	
Blue/Deacon/Black Rockfish	OR	1	0.45 (0.044)	676	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	90.5849	90.5849	2017	
Nearshore Rockfish North	N of 4010			93	77			
Black and Yellow	N of 4010	3 (Year Based)	0.45 (0.222)	0.014	0.0109	0.0109		
Blue	42 - 4010	2 (Year Based)	0.45 (0.143)	33.4	28.6238	28.6238	2017	
Blue	WA	3 (Year Based)	0.45 (0.222)	8.1	6.3018	6.3018	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)					
China	WA	2 (Year Based)	0.45 (0.159)	10.82	9.0996	9.0996	2015	OFLs are projected from the Northern Model in the 2015 assessment.
China	4010 - 4616	2 (Year Based)	0.45 (0.159)	21.88	18.4011	18.4011	2015	OFLs are projected from the Central Model in the 2015 assessment.
Copper	N of 4010	2 (Year Based)	0.45 (0.174)	9.8178	8.1095	8.1095	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)	0.657	0.5111	0.5111	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	0.2451	0.2451	2011	
Quillback	N of 4010	3 (Year Based)	0.45 (0.222)	7.37	5.7339	5.7339	2011	
Treefish	N of 4010	3 (Year Based)	0.45 (0.222)	0.2165	0.1684	0.1684	2011	
Nearshore Rockfish South	S of 4010			1085	897			
Blue	4010 - 3427	2 (Year Based)	0.45 (0.143)	334	286.238	286.238	2017	
Blue	S of Conc	3 (Year Based)	0.45 (0.222)	21.8	16.9604	16.9604	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.

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
Calico	S of 4010	3 (Year Based)	0.45 (0.222)					
China	S of 4010	2 (Year Based)	0.45 (0.159)	15.46	13.0019	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)	247.4322	204.379	204.379	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.
Gopher	S of 4010	2 (Year Based)	0.45 (0.126)	136	118.864	118.864	2019	Need to code the species as Gopher/Black-and-Yellow.
Grass	S of 4010	3 (Year Based)	0.45 (0.222)	59.6267	46.3896	46.3896	2011	
Kelp	S of 4010	3 (Year Based)	0.45 (0.222)	27.6594	21.519	21.519	2011	
Olive	S of 4010	3 (Year Based)	0.45 (0.222)	224.6426	174.7719	174.7719	2011	
Quillback	S of 4010	3 (Year Based)	0.45 (0.222)	5.3852	4.1897	4.1897	2011	
Treefish	S of 4010	3 (Year Based)	0.45 (0.222)	13.2295	10.2926	10.2926	2011	
Other Fish	CW			286	223			
Kelp Greenling	CA	3 (Year Based)	0.45 (0.222)	118.9	92.5042	92.5042	2011	
Leopard Shark	CW	3 (Year Based)	0.45 (0.222)	167.1	130.0038	130	2011	
Other Flatfish	CW			7714	4802			
Butter Sole	CW	3 (Year Based)	0.40 (0.398)	4.631	2.7879	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)	8.242	4.9617	4.9617		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	2890.202	2890.202	2011	
Rex Sole	CW	2 (Year Based)	0.40 (0.320)	2025.61	1377.4148	1377.4148	2013	Bayesian projections differ from the calculated ABCs.
Rock Sole	CW	3 (Year Based)	0.40 (0.398)	66.7	40.1534	40.1534	2011	
Sand Sole	CW	3 (Year Based)	0.40 (0.398)	773.2	465.4664	465.4664	2011	
Shelf Rockfish North	N of 4010			1888	1511			
Bocaccio	N of 4010	3 (Year Based)	0.45 (0.222)	284	220.952	220.952	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	177.4854	177.4854	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)	0.567	0.4411	0.4411	2019	

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
Flag	N of 4010	3 (Year Based)	0.45 (0.222)	0.1	0.0778	0.0778	2011	
Freckled	N of 4010	3 (Year Based)	0.45 (0.222)					
Greenblotched	N of 4010	3 (Year Based)	0.45 (0.222)	1.3	1.0114	1.0114	2011	
Greenspotted	42 - 4010	2 (Year Based)	0.45 (0.190)	9.3	7.533	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	4.7458	4.7458	2011	
Greenstriped	N of 4010	2 (Year Based)	0.45 (0.205)	896.1225	712.4174	712.4174	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	0.0031	0.0031	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	209.9822	209.9822	2011	
Rosethorn	N of 4010	3 (Year Based)	0.45 (0.222)	12.9	10.0362	10.0362	2011	
Rosy	N of 4010	3 (Year Based)	0.45 (0.222)	3	2.334	2.334	2011	
Silvergray	N of 4010	3 (Year Based)	0.45 (0.222)	159.4	124.0132	124.0132	2011	
Speckled	N of 4010	3 (Year Based)	0.45 (0.222)	0.2	0.1556	0.1556	2011	
Squarespot	N of 4010	3 (Year Based)	0.45 (0.222)	0.2	0.1556	0.1556	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	31.4312	31.4312	2011	
Swordspine	N of 4010	3 (Year Based)	0.45 (0.222)	0.0001	0.0001	0.0001	2011	

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
Tiger	N of 4010	3 (Year Based)	0.45 (0.222)	1	0.778	0.778	2011	
Vermilion	N of 4010	3 (Year Based)	0.45 (0.222)	9.7	7.5466	7.5466	2011	
Shelf Rockfish South	S of 4010			1842	1439			
Bronzespotted	S of 4010	3 (Year Based)	0.45 (0.222)	3.6	2.8008	2.8008	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	18.2052	18.2052	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	17.9718	17.9718	2011	
Greenspotted	4010 - 3427	2 (Year Based)	0.45 (0.190)	32.58	26.3898	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)	45.4321	36.8	36.8	2011	
Greenstriped	S of 4010	2 (Year Based)	0.45 (0.205)	164.3775	130.6801	130.6801	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	7.7022	7.7022	2011	
Mexican	S of 4010	3 (Year Based)	0.45 (0.222)	5.1	3.9678	3.9678	2011	
Pink	S of 4010	3 (Year Based)	0.45 (0.222)	2.5	1.945	1.945	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)	0.5	0.389	0.389	2011	
Rosethorn	S of 4010	3 (Year Based)	0.45 (0.222)	2.1	1.6338	1.6338	2011	
Rosy	S of 4010	3 (Year Based)	0.45 (0.222)	44.5	34.621	34.621	2011	
Silvergray	S of 4010	3 (Year Based)	0.45 (0.222)	0.5	0.389	0.389	2011	
Speckled	S of 4010	3 (Year Based)	0.45 (0.222)	39.4	30.6532	30.6532	2011	

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
Squarespot	S of 4010	3 (Year Based)	0.45 (0.222)	11.1	8.6358	8.6358	2011	
Starry	S of 4010	3 (Year Based)	0.45 (0.222)	62.6	48.7028	48.7028	2011	
Stripetail	S of 4010	3 (Year Based)	0.45 (0.222)	23.6	18.3608	18.3608	2011	
Swordspine	S of 4010	3 (Year Based)	0.45 (0.222)	14.2	11.0476	11.0476	2011	
Tiger	S of 4010	3 (Year Based)	0.45 (0.222)	0.04	0.0311	0.0311	2011	
Vermilion	S of 4010	3 (Year Based)	0.45 (0.222)	269.3	209.5154	209.5154	2011	
Yellowtail Rockfish	S of 4010	3 (Year Based)	0.45 (0.222)	1064.4	828.1032	828.1032	2011	
Slope Rockfish North	N of 4010			1862	1595			
Aurora	N of 4010	1 (Year Based)	0.45 (0.091)	17.5	15.9075	15.9075	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	13.3816	13.3816	2011	
Blackgill Rockfish	N of 4010	3 (Year Based)	0.45 (0.222)	4.7	3.6566	3.6566	2011	
Redbanded	N of 4010	3 (Year Based)	0.45 (0.222)	45.3	35.2434	35.2434	2011	
Rougheye/ Blackspotted	N of 4010	2 (Year Based)	0.45 (0.174)	232.26	191.8468	191.8468	2013	
Sharpchin	N of 4010	2 (Year Based)	0.45 (0.174)	292.3032	241.4424	241.4424	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	14.5486	14.5486	2011	
Splitnose	N of 4010	1 (Year Based)	0.45 (0.108)	1041.77	929.2588	929.2588	2009	
Yellowmouth	N of 4010	3 (Year Based)	0.45 (0.222)	192.4	149.6872	149.6872	2011	
Slope Rockfish South	S of 4010			873	709			
Aurora	S of 4010	1 (Year Based)	0.45 (0.091)	74.5	67.7205	67.7205	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	391.4896	391.4896	2011	
Blackgill Rockfish	S of 4010	2 (Year Based)	0.45 (0.143)	206	176.542	176.542	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	8.0912	8.0912	2011	

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
Rougheye/ Blackspotted	S of 4010	2 (Year Based)	0.45 (0.174)	4.74	3.9152	3.9152	2013	
Sharpchin	S of 4010	2 (Year Based)	0.45 (0.174)	73.0758	60.3606	60.3606	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	0.0778	0.0778	2011	
Yellowmouth	S of 4010	3 (Year Based)	0.45 (0.222)	0.8	0.6224	0.6224	2011	

Table 2. 2022 harvest specifications (mt) and stock category designations for west coast groundfish stocks and stock complexes under default harvest control rules.

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
Yelloweye Rockfish	CW	1 (Year Based)	0.40 (0.152)	98	83	51	2017	
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			188	174	174		
Cabazon	3427 - 42	1 (Year Based)	0.45 (0.070)	187.6	174.468	174.468	2019	
Cabazon	S of Conc	1 (Year Based)	0.45 (0.070)				2019	
Cabazon/Kelp Greenling	WA			12	10	10		
Cabazon	WA	3 (Year Based)	0.45 (0.222)	5.37	4.1779	4.1779	2017	
Kelp Greenling	WA	3 (Year Based)	0.45 (0.222)	7.1	5.5238	5.5238	2015	
Cabazon/Kelp Greenling	OR			208	190			
Cabazon	OR	1 (Year Based)	0.45 (0.070)	56.1	52.173	52.173	2019	
Kelp Greenling	OR	1 (Year Based)	0.45 (0.087)	151.4	138.2282	138.2282	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
Chilipepper	S of 4010	1 (Year Based)	0.45 (0.087)	2474	2259	2259	2015	93% of the coastwide chilipepper OFLL is apportioned S of 40°10' N lat. based on average historical landings.
Cowcod	S of 4010			113	15			
Cowcod	Mont	3 (Year Based)	0.45 (0.222)	18.624	14.4895	14.9376	2019	97% of the OFL N of 36° (see Appendix B of the 2019 cowcod assessment) is apportioned S of 40°10' N lat.
Cowcod	Conc	2 (Year Based)	0.45 (0.135)	93.9	81.2235	81.2235	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)	4749	3885	3885	2013	
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.

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
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	
Longspine Thornyhead	N of Conc	2 (Year Based)	0.40 (0.333)			2451.4408	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)				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	2 (Year Based)	0.40 (0.405)	6950	4135	500	2007	
Shortspine Thornyhead	CW	2 (Year Based)	0.40 (0.333)	3185	2124		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	
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	1	0.45 (0.044)	672	562			
Black Rockfish	OR	2 (Year Based)	0.45 (0.167)	569	473.977	473.977	2015	
Blue	OR	2 (Year Based)	0.45 (0.151)	103.1	87.5319	87.5319	2017	
Nearshore Rockfish North	N of 4010			92	76			

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
Black and Yellow	N of 4010	3 (Year Based)	0.45 (0.222)	0.0135	0.0105	0.0105		
Blue	42 - 4010	2 (Year Based)	0.45 (0.151)	33.6	28.5264	28.5264	2017	
Blue	WA	3 (Year Based)	0.45 (0.222)	7.8	6.0684	6.5352	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	8.6882	8.6882	2015	OFLs are projected from the Northern Model in the 2015 assessment.
China	4010 - 4616	2 (Year Based)	0.45 (0.167)	21.37	17.8012	17.8012	2015	OFLs are projected from the Central Model in the 2015 assessment.
Copper	N of 4010	2 (Year Based)	0.45 (0.182)	9.8594	8.065	8.065	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)	0.6567	0.5109	0.5109	2011	
Kelp	N of 4010	3 (Year Based)	0.45 (0.222)	0.0092	0.0072	0.0072	2011	
Olive	N of 4010	3 (Year Based)	0.45 (0.222)	0.3152	0.2452	0.2452	2011	
Quillback	N of 4010	3 (Year Based)	0.45 (0.222)	7.3742	5.7371	5.7371	2011	
Treefish	N of 4010	3 (Year Based)	0.45 (0.222)	0.2165	0.1684	0.1684	2011	
Nearshore Rockfish South	S of 4010			1088	893			
Blue	4010 - 3427	2 (Year Based)	0.45 (0.151)	336	285.264	285.264	2017	
Blue	S of Conc	3 (Year Based)	0.45 (0.222)	21.8	16.9604	16.9604	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)	246.9806	202.0301	202.0301	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.
Gopher	S of 4010	2 (Year Based)	0.45 (0.135)	137	118.505	118.505	2019	Need to code the species as Gopher/Black-and-Yellow.
Grass	S of 4010	3 (Year Based)	0.45 (0.222)	59.6267	46.3896	46.3896	2011	

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
Kelp	S of 4010	3 (Year Based)	0.45 (0.222)	27.6594	21.519	21.519	2011	
Olive	S of 4010	3 (Year Based)	0.45 (0.222)	224.6426	174.7719	174.7719	2011	
Quillback	S of 4010	3 (Year Based)	0.45 (0.222)	5.3852	4.1897	4.1897	2011	
Treefish	S of 4010	3 (Year Based)	0.45 (0.222)	13.2295	10.2926	10.2926	2011	
Other Fish	CW			286	223			
Kelp Greenling	CA	3 (Year Based)	0.45 (0.222)	118.9	92.5042	92.5042	2011	
Leopard Shark	CW	3 (Year Based)	0.45 (0.222)	167.1	130.0038	130	2011	
Other Flatfish	CW			7808	4838			
Butter Sole	CW	3 (Year Based)	0.40 (0.398)	4.6308	2.7877	2.7877		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)	8.2423	4.9619	4.9619		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	2890.202	2890.202	2011	
Rex Sole	CW	2 (Year Based)	0.40 (0.333)	2119.65	1413.8066	1413.8066	2013	Bayesian projections differ from the calculated ABCs.
Rock Sole	CW	3 (Year Based)	0.40 (0.398)	66.7	40.1534	40.1534	2011	
Sand Sole	CW	3 (Year Based)	0.40 (0.398)	773.2	465.4664	465.4664	2011	
Shelf Rockfish North	N of 4010			1821	1450			
Bocaccio	N of 4010	3 (Year Based)	0.45 (0.222)	284.0136	220.9626	220.9626	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 (0.087)	186.2	170.0006	170.0006	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)	0.567	0.4411	0.3112	2019	
Flag	N of 4010	3 (Year Based)	0.45 (0.222)	0.0724	0.0563	0.0563	2011	
Freckled	N of 4010	3 (Year Based)	0.45 (0.222)					
Greenblotched	N of 4010	3 (Year Based)	0.45 (0.222)	1.2774	0.9938	0.9938	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)	6.078	4.7287	4.7287	2011	
Greenstriped	N of 4010	2 (Year Based)	0.45 (0.212)	836.719	659.3346	659.3346	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.

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
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)					
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)	269.9106	209.9904	209.9904	2011	
Rosethorn	N of 4010	3 (Year Based)	0.45 (0.222)	12.8971	10.0339	10.0339	2011	
Rosy	N of 4010	3 (Year Based)	0.45 (0.222)	3.034	2.3605	2.3605	2011	
Silvergray	N of 4010	3 (Year Based)	0.45 (0.222)	159.4204	124.0291	124.0291	2011	
Speckled	N of 4010	3 (Year Based)	0.45 (0.222)	0.1711	0.1331	0.1331	2011	
Squarespot	N of 4010	3 (Year Based)	0.45 (0.222)	0.1724	0.1341	0.1341	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)	40.3954	31.4276	31.4276	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)	0.9689	0.7538	0.7538	2011	
Vermilion	N of 4010	3 (Year Based)	0.45 (0.222)	9.7168	7.5597	7.5597	2011	
Shelf Rockfish South	S of 4010			1832	1429			
Bronzespotted	S of 4010	3 (Year Based)	0.45 (0.222)	3.6465	2.837	2.837	2011	
Chameleon	S of 4010	3 (Year Based)	0.45 (0.222)					
Flag	S of 4010	3 (Year Based)	0.45 (0.222)	23.4239	18.2238	18.2238	2011	
Freckled	S of 4010	3 (Year Based)	0.45 (0.222)					

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
Greenblotched	S of 4010	3 (Year Based)	0.45 (0.222)	23.1305	17.9955	17.9955	2011	
Greenspotted	4010 - 3427	2 (Year Based)	0.45 (0.197)	32.72	26.2742	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)	45.5369	36.5661	36.5661	2011	
Greenstriped	S of 4010	2 (Year Based)	0.45 (0.212)	153.481	120.943	120.943	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)	9.8668	7.6764	7.6764	2011	
Mexican	S of 4010	3 (Year Based)	0.45 (0.222)	5.0532	3.9314	3.9314	2011	
Pink	S of 4010	3 (Year Based)	0.45 (0.222)	2.5	1.945	1.945	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)	0.4926	0.3832	0.3832	2011	
Rosethorn	S of 4010	3 (Year Based)	0.45 (0.222)	2.1305	1.6575	1.6575	2011	
Rosy	S of 4010	3 (Year Based)	0.45 (0.222)	44.5082	34.6274	34.6274	2011	
Silvergray	S of 4010	3 (Year Based)	0.45 (0.222)	0.5376	0.4183	0.4183	2011	
Speckled	S of 4010	3 (Year Based)	0.45 (0.222)	39.3813	30.6387	30.6387	2011	
Squarespot	S of 4010	3 (Year Based)	0.45 (0.222)	11.1	8.6358	8.6358	2011	
Starry	S of 4010	3 (Year Based)	0.45 (0.222)	62.5716	48.6807	48.6807	2011	
Stripetail	S of 4010	3 (Year Based)	0.45 (0.222)	23.6233	18.3789	18.3789	2011	
Swordspine	S of 4010	3 (Year Based)	0.45 (0.222)	14.2159	11.06	11.06	2011	
Tiger	S of 4010	3 (Year Based)	0.45 (0.222)	0.0399	0.031	0.031	2011	
Vermilion	S of 4010	3 (Year Based)	0.45 (0.222)	269.2764	209.497	209.497	2011	
Yellowtail Rockfish	S of 4010	3 (Year Based)	0.45 (0.222)	1064.4392	828.1337	828.1337	2011	

Stock or Complex	Area	Cat.	P* (Buffer)	OFL	ABC	ACL	Assess_Year	Notes
Slope Rockfish North	N of 4010			1842	1568			
Aurora	N of 4010	1 (Year Based)	0.45 (0.096)	17.4	15.7296	15.7296	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)	17.2375	13.4108	13.4108	2011	
Blackgill Rockfish	N of 4010	3 (Year Based)	0.45 (0.222)	4.7	3.6566	3.6566	2011	
Redbanded	N of 4010	3 (Year Based)	0.45 (0.222)	45.2618	35.2137	35.2137	2011	
Rougheye/Blackspotted	N of 4010	2 (Year Based)	0.45 (0.182)	233.24	190.7903	190.7903	2013	
Sharpchin	N of 4010	2 (Year Based)	0.45 (0.182)	288.8576	236.2855	236.2855	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)	18.7038	14.5516	14.5516	2011	
Splitnose	N of 4010	1 (Year Based)	0.45 (0.113)	1024.53	908.7581	908.7581	2009	
Yellowmouth	N of 4010	3 (Year Based)	0.45 (0.222)	192.4467	149.7235	149.7235	2011	
Slope Rockfish South	S of 4010			871	705			
Aurora	S of 4010	1 (Year Based)	0.45 (0.096)	74.4	67.2576	67.2576	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)	503.215	391.5013	391.5013	2011	
Blackgill Rockfish	S of 4010	2 (Year Based)	0.45 (0.151)	205	174.045	174.045	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)	10.4057	8.0956	8.0956	2011	
Rougheye/Blackspotted	S of 4010	2 (Year Based)	0.45 (0.182)	4.76	3.8937	3.8937	2013	
Sharpchin	S of 4010	2 (Year Based)	0.45 (0.182)	72.2144	59.0714	59.0714	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)	0.1049	0.0816	0.0816	2011	
Yellowmouth	S of 4010	3 (Year Based)	0.45 (0.222)	0.8483	0.66	0.66	2011	