

RECENT YEAR CATCH ESTIMATES RELVANT TO DECIDING A RANGE OF 2011-2012
ALLOCATIONS

1. March 2009 Groundfish Management Team Scorecard for Overfished Species. This is the first scorecard under the 2009-2010 management cycle updated with the latest West Coast Groundfish Observer Data (at that time), tribal impacts, non-whiting exempted fishing permits caps, estimated research impacts, and the 2009 non-treaty whiting bycatch limits for widow, darkblotched, and Pacific ocean perch. The yelloweye rockfish and canary rockfish shares by sector and state were recommended by the Council as the preliminary basis for the 2-year allocations for the 2011-2012 cycle.
2. March 2010 Groundfish Management Team Scorecard for Overfished Species. This is the most recent scorecard and it has been updated with the latest West Coast Groundfish Observer Data, tribal impacts, non-whiting exempted fishing permits caps, estimated research impacts, and the 2010 whiting bycatch limits for widow, darkblotched, and Pacific ocean perch.
3. Historical Scorecard Percentages for Overfished Species, After Removing Set-Asides. These are the percentages adopted by the Council during the 2005-2006, 2007-2008, and 2009-2010 cycles. Percentages for the limited entry whiting trawl fishery are based on bycatch limits analyzed in the Environmental Impact Statement and may not represent the actual values specified in Federal regulation. The canary and yelloweye rockfish percentages for the California recreational fishery are based on the harvest guidelines for specified in regulation for each biennium. The canary and yelloweye rockfish percentages for the Washington and Oregon recreational fisheries represent the informal sharing agreements between the states in order to stay within the federally specified harvest guidelines north of 42° N. lat. In 2005-2006, values for the fixed gear nearshore values, sablefish daily trip limit are included in the open access groundfish directed row.
4. Table 17. Estimated total fishing mortality (mt) of major west coast groundfish species in 2008 by sector. Excerpt from the Estimated Discard and Total Catch of Selected Groundfish Species in the 2008 U.S. West Coast Fisheries (October 2009).
5. Table 17. Estimated total fishing mortality (mt) of major west coast groundfish species in 2007 by sector. Excerpt from the Estimated Discard and Total Catch of Selected Groundfish Species in the 2008 U.S. West Coast Fisheries (October 2008).
6. Estimated Total Mortality of Overfished Species in the Recreational Fisheries from 2005-2009. These data were provided by state staff and represent updates and corrections that occurred since the publication of the 2007 & 2008 Estimated Discard and Total Catch of Selected Groundfish Species in the U.S. West Coast Fisheries reports.

Attachment 1. Updated Bycatch Scorecard

Projected mortality impacts (mt) of overfished groundfish species updated with most recent West Coast Groundfish Observer data for LE trawl, nearshore, OA DTL, LE FG.

Fishery	Bocaccio b/	Canary	Cowcod	Dkbl	POP	Widow	Yelloweye
Limited Entry Trawl- Non-whiting	15.1	16.2	1.3	214.4	82.1	18.1	0.3
Limited Entry Trawl- Whiting							
At-sea whiting motherships a/		4.3		6.0	0.5	60.0	0.0
At-sea whiting cat-proc a/		6.1		8.5	0.5	85.0	0.0
Shoreside whiting a/		7.6		10.5	0.1	105.0	0.0
Tribal whiting		1.4		0.0	0.7	3.7	0.0
Tribal							
Midwater Trawl		3.6		0.0	0.0	40.0	0.0
Bottom Trawl		0.8		0.0	3.7	0.0	0.0
Troll		0.5		0.0	0.0		0.0
Fixed gear		0.3		0.0	0.0	0.0	2.3
Fixed Gear Sablefish	0.0	0.3	0.0	1.0	0.2	0.3	1.1
Fixed Gear Nearshore	0.0	2.9	0.0	0.0	0.0	0.1	0.9
Fixed Gear Other	5.0	0.0	0.0	9.0	0.0	0.7	0.0
Open Access: Incidental Groundfish	2.0	0.9	0.0	0.0	0.0	4.0	0.3
Recreational Groundfish c/							
WA		20.9					5.2
OR						1.0	
CA	67.3	22.9	0.1			6.2	2.8
EFPs	13.7	2.7	0.3	1.3	0.0	5.5	0.3
Research: Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs.							
	2.0	8.0	0.2	2.0	2.0	1.1	2.4
TOTAL	105.1	99.4	1.9	252.7	89.8	330.7	15.6
2009 OY d/	288	105	4.0	285	189	522	17
Difference	182.9	5.6	2.1	32.3	99.2	191.4	1.4
Percent of OY	36.5%	94.6%	47.5%	88.7%	47.5%	63.3%	91.9%
Key	= either not applicable; trace amount (<0.01 mt); or not reported in available data						
<p>a/ Non-tribal whiting values for canary, darkblotched, and widow reflect bycatch limits for the non-tribal whiting sectors. The widow bycatch limit is the difference between the OY and the projected impacts in all non-whiting fisheries. All other species' impacts are projected from the GMT's whiting impact projection model. The Council may elect to change these bycatch limits when setting final whiting management measures in March of 2009 or 2010 or under any inseason action at any of their future meetings.</p> <p>b/ South of 40°10' N. lat.</p> <p>c/ Values in scorecard represent projected impacts for all species except canary and yelloweye rockfish, which are the prescribed harvest guidelines.</p> <p>d/ 2009 and 2010 OYs are the same except for darkblotched (291 mt in 2010), POP (200 mt in 2010), and widow (509 mt in 2010).</p>							

Projected mortality (mt) of overfished groundfish species updated with Council action on non-tribal whiting bycatch limits for canary rockfish and widow rockfish in March 2010.

Fishery	Bocaccio a/	Canary	Cow cod	Dkbl	POP	Widow	Yelloweye
Limited Entry Trawl - Non-whiting	16.1	21.3	1.5	230.6	100.8	21.6	0.6
Limited Entry Trawl - Whiting							
At-sea w hiting motherships b/		3.3		6.0	0.5	67	0.0
At-sea w hiting cat-proc b/		4.8		8.5	0.5	95	0.0
Shoreside w hiting b/		5.9		10.5	4.7	117	0.0
Tribal w hiting		4.3		0.0	7.2	5.0	0.0
Tribal							
Midwater Trawl		3.6		0.0	0.0	40.0	0.0
Bottom Trawl		0.8		0.0	3.7	0.0	0.0
Troll		0.5		0.0	0.0		0.0
Fixed gear		0.3		0.0	0.0	0.0	2.3
Fixed Gear Sablefish	0.0	2.5	0.0	4.5	0.4	0.0	0.9
Fixed Gear Nearshore	0.3	3.6	0.0	0.0	0.0	0.3	1.3
Fixed Gear Other	5.0	0.0	0.0	9.0	0.0	0.7	0.0
Open Access: Incidental Groundfish	2.0	0.9	0.0	0.0	0.0	4.0	0.3
Recreational Groundfish c/							
WA		20.9					5.1
OR						1.0	
CA	67.3	22.9	0.3			6.2	2.8
EFPs	11.0	1.3	0.2	1.5	0.1	11.0	0.4
Research: Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs.							
	2.0	4.5	0.2	2.0	2.0	5.7	3.3
TOTAL	103.7	101.3	2.2	272.6	119.9	374.5	17.0
2010 OY	288	105	4.0	291	200	509	17
Difference	184.3	3.7	1.8	18.4	80.1	134.5	0.0
Percent of OY	36.0%	96.5%	55.0%	93.7%	60.0%	73.6%	100.0%
Key	= either not applicable; trace amount (<0.01 mt); or not reported in available						

a/ South of 40°10' N. lat.

b/ Non-tribal whiting values for canary, darkblotched, and widow reflect Council recommended bycatch limits for the non-tribal whiting sectors. All other species' impacts are projected from the GMT's whiting impact projection model. The Council may elect to change these bycatch limits under any inseason action at any of their future meetings.

c/ Values in scorecard represent projected impacts for all species except canary and yellow eye rockfish, which are the prescribed harvest guidelines.

Historical Scorecard Percentages for Overfished Species, After Removing Set-Asides.

Fishery	Year	Bocaccio	Canary	Cowcod	Yelloweye
Limited Entry Trawl- Non-whiting	2005-2006	42.3%	24.0%	38.5%	2.4%
	2007-2008	34.7%	24.1%	87.5%	0.7%
	2009-2010	11.8%	19.1%	81.3%	5.6%
Limited Entry Trawl - Whiting	2005-2006	0.0%	21.9%	0.0%	2.4%
	2007-2008	0.0%	14.3%	0.0%	0.0%
	2009-2010	0.0%	22.2%	0.0%	0.0%
Limited Entry Fixed Gear	2005-2006	11.5%	2.7%	7.7%	14.8%
	2007-2008	9.7%	2.7%	3.1%	16.8%
	2009-2010	12.9%	1.2%	6.3%	12.1%
Open access Groundfish Directed*	2005-2006	9.1%	3.0%	7.7%	3.6%
Sablefish DTL + Other	2007-2008	7.7%	0.3%	0.0%	2.2%
	2009-2010	10.2%	0.1%	6.3%	2.8%
Fixed Gear Nearshore	2007-2008	0.0%	6.1%	0.0%	15.3%
	2009-2010	0.2%	3.3%	0.0%	5.6%
WA - Rec	2005-2006	0.0%	5.7%	0.0%	30.8%
	2007-2008	0.0%	5.2%	0.0%	25.5%
	2009-2010	0.0%	6.0%	0.0%	25.2%
OR - Rec	2005-2006	0.0%	14.7%	0.0%	24.3%
	2007-2008	0.0%	19.8%	0.0%	24.1%
	2009-2010	0.0%	19.7%	0.0%	22.4%
CA - Rec	2005-2006	37.0%	27.9%	46.2%	21.9%
	2007-2008	47.9%	27.4%	9.4%	15.3%
	2009-2010	64.8%	28.2%	6.3%	26.2%

*Contains sablefish DTL, other, and fixed gear nearshore.

Table 17. Estimated total fishing mortality (mt) of major west coast groundfish species in 2008 by sector.

	LE bottom trawl	Shoreside commercial fisheries					WA tribal landings	All at-sea hake fisheries	Total recreational fishing mortality			Remaining incidental fisheries landings	Estimated total fishing mortality	
		CA halibut	Pink shrimp	Non-nearshore fixed gear	Nearshore fixed gear	Shoreside hake mid-water trawl			WA	OR	CA			Research
Rebuilding species														
Bocaccio (South of 40°10' N. lat.)	6	--	NA	0	1	NA	NA	NA	NA	35	--	3	45	
Canary rockfish	15	--	0	2	2	5	4	1	3	6	--	--	39	
Cowcod (South of 40°10' N. lat.)	0	--	NA	--	--	NA	NA	NA	NA	0	0	--	1	
Darkblotched rockfish	223	--	11	11	0	1	6	--	--	--	1	0	253	
Pacific ocean perch (North of 40°10' N. lat.)	106	NA	0	0	--	7	16	--	--	--	1	0	131	
Widow rockfish	6	--	--	0	0	101	9	115	0	5	0	1	238	
Yelloweye rockfish	0	--	--	1	2	0	0	2	3	2	1	0	12	
Non-rebuilding species														
Arrowtooth flounder	3245	--	30	95	--	2	25	6	--	0	5	0	3409	
Black rockfish (North of 46°16' N. lat.)	--	NA	--	--	0	0	0	0	156	NA	0	--	156	
Black rockfish (South of 46°16' N. lat.)	0	--	0	--	183	--	NA	NA	255	155	--	0	593	
Cabezon (South of 42° N. lat.)	--	--	--	--	23	NA	NA	NA	NA	15	0	0	39	
California scorpionfish (South of 36° N. lat.)	--	1	NA	1	2	NA	NA	NA	NA	60	--	1	65	
Chilipepper rockfish (South of 40°10' N. lat.)	138	0	NA	--	0	NA	NA	NA	NA	3	5	5	151	
Dover sole	11523	0	13	11	0	0	238	1	--	0	33	0	11820	
English sole	395	2	1	--	--	0	36	0	--	--	2	0	436	
Lingcod (North of 42° N. lat.)	107	NA	0	29	33	3	68	5	46	88	3	16	398	
Lingcod (South of 42° N. lat.)	38	0	0	5	27	0	--	--	--	99	0	7	176	
Other flatfish	898	5	33	0	1	0	43	0	--	34	12	13	1040	
Other groundfish	3567	56	6	550	26	60	356	514	6	22	41	106	5339	
Kelp greenling	0	--	--	--	24	--	--	--	1	22	9	0	57	
Skates*	2055	50	1	139	0	0	53	--	2	--	--	12	2314	
Spiny dogfish	1023	3	4	332	1	59	303	673	--	0	3	82	2497	
Unspecified grenadiers	303	--	--	77	--	--	--	0	--	--	--	--	379	
Other	186	4	1	2	26	0	0	1	3	--	16	12	277	
Minor rockfish (North of 40°10' N. lat.)	275	NA	26	105	60	6	28	79	9	38	13	1	651	
Nearshore	0	NA	0	--	51	0	0	0	7	31	8	--	97	
Shelf	14	NA	12	4	9	4	2	2	1	7	4	1	75	
Bocaccio	1	NA	--	0	--	0	1	1	1	0	0	0	4	
Chilipepper rockfish	1	NA	0	0	--	4	--	1	--	0	0	0	6	

Table 17 (continued).

	Shoreside commercial fisheries										All at-sea hake fisheries	Total recreational fishing mortality			Remaining incidental fisheries landings	Estimated total fishing mortality
	LE bottom trawl	CA halibut	Pink shrimp	Non-nearshore fixed gear	Nearshore fixed gear	Shoreside hake mid-water trawl	WA tribal landings	Total recreational fishing mortality		Research						
								WA	OR			CA				
Minor rockfish (North of 40°10' N. lat.)																
Shelf (continued)																
Redstripe rockfish	1	NA	0	0	--	--	1	0	--	0	0	2				
Silvergray rockfish	2	NA	--	1	--	--	0	0	--	0	0	3				
Remaining shelf rockfish	9	NA	12	3	9	0	1	0	1	7	4	47				
Slope	261	NA	13	101	0	2	25	77	--	0	4	484				
Sharpchin rockfish	5	NA	0	0	--	0	0	0	--	0	2	7				
Splitnose rockfish	82	NA	13	0	--	0	2	1	--	0	2	99				
Yellowmouth rockfish	1	NA	--	1	--	0	1	0	--	0	--	3				
Remaining slope rockfish	173	NA	0	100	0	1	23	76	--	0	0	375				
Minor rockfish (South of 40°10' N. lat.)																
Nearshore	167	0	NA	28	98	NA	--	NA	NA	476	8	802				
Gopher rockfish	0	0	NA	0	89	NA	--	NA	NA	304	--	394				
Remaining nearshore rockfish	--	--	NA	0	25	NA	NA	NA	NA	42	--	67				
Shelf	24	0	NA	--	65	NA	NA	NA	NA	262	--	327				
Yellowtail rockfish	1	--	NA	0	8	NA	--	NA	NA	171	0	212				
Remaining shelf rockfish	23	0	NA	--	0	NA	NA	NA	NA	15	0	18				
Slope	143	--	NA	28	0	NA	--	NA	NA	0	--	194				
Bank rockfish	92	--	NA	0	0	NA	NA	NA	NA	0	0	17				
Blackgill rockfish	36	--	NA	21	0	NA	NA	NA	NA	0	0	93				
Sharpchin rockfish	--	--	NA	--	--	NA	NA	NA	NA	NA	0	0				
Remaining slope rockfish	15	--	NA	6	0	NA	NA	NA	NA	NA	--	23				
Pacific cod (North of 43° N. lat.)	12	NA	--	0	0	0	26	0	0	NA	0	39				
Pacific hake	1251	0	684	2	--	50788	16972	180496	--	0	12	250205				
Petrale sole	2212	0	1	1	0	0	44	--	--	0	2	2260				
Sablefish	2963	--	2	2536	4	0	525	2	--	2	13	6078				
Shortbelly rockfish	8	--	0	0	--	0	--	--	--	--	1	9				
Splitnose rockfish (South of 40°10' N. lat.)	174	--	NA	0	--	NA	NA	NA	NA	NA	3	177				
Starry flounder	14	3	--	--	0	0	--	--	--	3	1	21				
Thornyheads	2689	--	0	175	1	0	37	7	--	--	19	2972				
Longspine thornyhead (North of 34° 27' N. lat.)	1429	--	--	2	--	0	0	0	--	--	13	1445				
Longspine thornyhead (South of 34° 27' N. lat.)	--	--	NA	14	0	--	--	NA	--	--	1	18				
Shortspine thornyhead (North of 34° 27' N. lat.)	1243	--	0	24	0	0	36	5	--	--	4	1313				
Shortspine thornyhead (South of 34° 27' N. lat.)	--	--	NA	130	0	--	--	NA	--	--	1	172				
Mixed thornyheads	18	--	--	5	--	--	--	1	--	--	--	24				
Yellowtail rockfish (North of 40°10' N. lat.)	8	--	0	0	1	43	214	184	15	5	0	476				

Table 17 (continued).

	Shoreside commercial fisheries											All at-sea hake fisheries	Total recreational fishing mortality			Remaining incidental fisheries landings	Estimated total fishing mortality	
	LE bottom trawl	CA halibut		Pink shrimp	Non-nearshore fixed gear		Nearshore fixed gear		Shoreside hake mid-water trawl		WA tribal landings		WA	OR	CA			Research
Non-groundfish species																		
California halibut	39	78	--	0	1	--	1	--	--	--	--	0	--	235	--	124	478	
Dungeness crab	222	165	1	6	11	0	1148	0	0	0	0	0	--	--	--	15602	17155	
Eulachon	--	--	12	--	--	--	--	--	--	--	--	0	--	--	--	--	12	
Other non-FMP flatfish	52	1	147	--	--	--	--	--	--	--	--	--	--	0	--	--	202	
Pacific halibut **	(265**)	0	0	(68**)	0	0	202	4	12	10	27	589						
Tanner crab	555	--	--	4	0	--	--	--	--	--	--	--	--	--	--	--	559	

** Discard estimates for Pacific halibut in the Non-nearshore fixed gear (Heery and Bellman 2009) and LE bottom trawl (Wallace and Haslie 2009) sectors were computed in separate reports.

Table 17. Estimated total fishing mortality (mt) of major west coast groundfish species in 2007 by sector.

	Shoreside commercial fisheries										All at-sea hake fisheries	Total recreational fishing mortality			Remaining incidental OA fisheries landings	Estimated total fishing mortality
	LE bottom trawl	CA halibut	Pink shrimp	Non-nearshore fixed-gear	Nearshore fixed-gear	Shoreside hake mid-water trawl	WA tribal landings	Total recreational fishing mortality				Research				
		CA halibut	Pink shrimp	Non-nearshore fixed-gear	Nearshore fixed-gear	Shoreside hake mid-water trawl		WA	OR	CA						
Rebuilding species																
Bocaccio (South of 40°10' N. lat.)	5	--	NA	5	1	NA	NA	NA	NA	NA	54	1	2	67		
Canary rockfish	19	0	0	0	4	2	1	2	1	2	11	3	--	46		
Cowcod (South of 40°10' N. lat.)	3	--	NA	0	0	NA	NA	NA	NA	NA	0	0	0	3		
Darkblotched rockfish	242	--	18	10	0	1	0	12	0	0	0	1	0	285		
Pacific ocean perch (North of 40°10' N. lat.)	126	--	0	0	0	23	2	4	0	0	0	1	0	157		
Widow rockfish	16	--	0	1	1	82	1	146	0	0	8	0	4	259		
Yelloweye rockfish	0	--	--	1	3	0	0	0	2	3	8	2	0	19		
Non-rebuilding species																
Arrowtooth flounder	2769	--	11	77	0	3	225	3	0	0	0	7	4	3099		
Black rockfish (North of 46°16' N. lat.)	3	NA	--	--	NA	1	--	0	256	NA	NA	0	--	260		
Black rockfish (South of 46°16' N. lat.)	0	--	--	--	162	0	NA	0	NA	271	143	0	0	577		
Cabezon (South of 42° N. lat.)	--	0	--	--	26	NA	NA	NA	NA	NA	16	0	0	42		
California scorpionfish (South of 36° N. lat.)	--	1	NA	--	2	NA	NA	NA	NA	NA	64	0	1	68		
Chilipepper rockfish (South of 40°10' N. lat.)	109	--	NA	4	0	NA	NA	NA	NA	NA	8	6	2	128		
Dover sole	9824	0	32	7	0	0	303	0	0	0	0	38	23	10227		
English sole	839	2	1	0	--	0	66	0	0	0	0	5	1	914		
Lingcod	189	0	1	29	56	5	48	6	66	102	174	4	26	706		
Other flatfish	1443	7	103	0	0	0	48	0	0	0	19	12	15	1649		
Other groundfish	3174	55	5	683	44	52	170	157	7	22	42	61	43	4516		
Kelp greenling	0	--	--	--	20	--	--	0	1	22	10	0	0	53		
Skates*	1939	50	2	123	0	1	56	2	2	0	0	6	13	2192		
Spiny dogfish	652	3	1	509	0	51	113	155	0	0	5	13	1	1504		
Unspecified grenadiers	359	--	--	48	--	--	--	0	0	0	0	5	2	414		
Other	225	2	1	3	24	0	1	1	4	0	0	36	27	352		
Minor rockfish (North of 40°10' N. lat.)	418	NA	44	77	86	24	0	35	10	41	27	11	1	774		
Nearshore	0	NA	0	--	74	0	0	0	8	33	17	0	0	133		
Shelf	77	NA	25	5	11	6	1	3	2	8	10	6	1	153		
Bocaccio	2	NA	0	0	0	0	--	1	1	0	0	0	--	4		
Chilipepper rockfish	2	NA	0	0	--	6	--	0	0	0	0	2	--	11		

* Skates include big skate, longnose skate, and unspecified skate. Individual total mortality values are not presented for these species because all skates are typically landed as 'unspecified skate' and the mortality from landings for big skate and longnose skate cannot be accurately summarized.

Table 17 (cont). Estimated total fishing mortality (mt) of major west coast groundfish species in 2007 by sector.

	Shoreside commercial fisheries										All at-sea hake fisheries	Total recreational fishing mortality			Remaining incidental OA fisheries landings	Estimated total fishing mortality
	LE bottom trawl	CA halibut	Pink shrimp	Non-nearshore fixed-gear		Nearshore fixed-gear	Shoreside hake mid-water trawl	WA tribal landings	Total recreational fishing mortality			Research				
				WA	CA				WA	OR			CA			
Non-rebuilding species (cont.)																
Minor rockfish (North of 40°10' N. lat.)	418	NA	44	77	86	24				35	10	41	27	11	1	774
Redstripe rockfish	1	NA	--	0	--	--		--		1	0	0	0	0	--	2
Silvergray rockfish	43	NA	--	0	--	--		--		0	0	0	0	0	--	43
Remaining shelf rockfish	29	NA	25	4	11	0		1		0	1	7	9	4	1	93
Slope	342	NA	18	72	1	18		32		33	0	0	0	5	1	522
Sharpchin rockfish	9	NA	1	0	--	0		0		1	0	0	0	0	--	11
Splitnose rockfish	145	NA	14	0	0	9		0		2	0	0	0	5	0	175
Yellowmouth rockfish	11	NA	--	0	--	0		0		0	0	0	0	0	--	11
Remaining slope rockfish	177	NA	3	72	1	9		32		29	0	0	0	0	1	324
Minor rockfish (South of 40°10' N. lat.)	147	0	NA	27	78	NA		NA		NA	NA	NA	703	4	21	981
Nearshore	1	0	NA	--	21	NA		NA		NA	NA	NA	34	0	0	466
Gopher rockfish	--	0	NA	--	48	NA		NA		NA	NA	NA	361	0	1	411
Remaining nearshore rockfish	1	0	NA	--	9	NA		NA		NA	NA	NA	308	3	9	365
Shelf	35	0	NA	2	2	NA		NA		NA	NA	NA	55	0	1	60
Yellowtail rockfish	2	--	NA	0	7	NA		NA		NA	NA	NA	252	3	7	305
Remaining shelf rockfish	33	0	NA	2	25	0		NA		NA	NA	NA	0	1	11	149
Slope	112	0	NA	1	--	NA		NA		NA	NA	NA	0	0	8	36
Bank rockfish	27	--	NA	19	--	NA		NA		NA	NA	NA	0	0	3	51
Blackgill rockfish	29	--	NA	0	--	NA		NA		NA	NA	NA	0	0	--	0
Sharpchin rockfish	0	--	NA	5	0	NA		NA		NA	NA	NA	0	0	0	62
Remaining slope rockfish	56	0	NA	0	--	0		NA		0	0	0	0	0	0	101
Pacific cod (North of 43°N. lat.)	55	NA	2808	3	0	73300		45		126237	0	0	0	49	0	215340
Pacific hake	1155	--	2	0	0	0		11789		0	0	0	1	5	0	2340
Petrale sole	2286	0	0	2374	6	9		515		3	0	4	0	9	17	5545
Sablefish	2607	--	0	0	--	--		--		0	0	0	0	0	--	1
Shortbelly rockfish	0	--	NA	0	--	NA		NA		NA	NA	NA	0	3	0	143
Splitnose rockfish (South of 40°10' N. lat.)	140	--	5	--	0	--		0		0	0	3	0	0	0	30
Starry flounder	21	5	--	193	0	1		38		3	0	0	0	0	2	2114
Thornyheads	1876	--	1	23	0	1		0		0	0	0	0	12	1	928
Longspine thornyhead	890	--	0	166	0	0		38		3	0	0	0	5	1	1194
Shortspine thornyhead	980	--	0	4	--	--		--		0	0	0	0	0	--	9
Mixed thornyheads	5	--	--	1	4	--		74		79	14	7	0	4	3	389
Yellowtail rockfish (North of 40°10' N. lat.)	17	NA	0	1	4	186		0		0	0	0	0	0	0	0

Table 17 (cont). Estimated total fishing mortality (mt) of major west coast groundfish species in 2007 by sector.

Non-groundfish species	Shoreside commercial fisheries										All at-sea hake fisheries	Total recreational fishing mortality		Remaining incidental OA fisheries landings	Estimated total fishing mortality
	LE bottom trawl	CA halibut	Pink shrimp	Non-nearshore fixed-gear	Nearshore fixed-gear	Shoreside hake mid-water trawl	WA tribal landings	WA OR	CA	Research					
		42	69	--	0	1						--	--		
California halibut	246	38	0	4	16	0	1622	--	--	0	--	--	94	208	
Dungeness crab	0	--	5	--	--	--	--	--	--	0	--	--	18410.4 *	20337	
Eulachon	0	1	--	--	--	--	0	--	--	0	--	--	--	5	
Green sturgeon	60	2	222	0	--	--	--	--	--	--	--	--	--	1	
Other non-FMP flatfish	216	0	0	178	0	--	170	--	--	--	1	--	--	284	
Pacific halibut	451	--	--	1	--	--	--	--	--	0	--	--	31	597	
Tanner crab										0	--	--	--	452	

* Remaining incidental OA fisheries landings includes retained weights from the Dungeness crab fishery.

Table 3. 2005 to 2009 Estimated Total Mortality of Overfished Species in the Recreational Fisheries.

Species	Year	State	Mortality (mt)	Harvest Guideline*	% of Harvest Guideline
Bocaccio south 40°10 N. Lat	2005	CA	39.1	N/A	N/A
	2006	CA	42.5		
	2007	CA	53.6		
	2008	CA	34.8		
	2009	CA	50.0		
Canary	2005	CA	3.9	9.3	42%
		OR	4.9	6.7	73%
		WA	1.9	1.8	108%
	2006	CA	12.5	9.3	134%
		OR	2.9	6.7	43%
		WA	1.1	1.8	62%
	2007	CA	10.9	9	121%
		OR	2.5	6.5	38%
		WA	1.2	1.7	71%
	2008	CA	5.6	9	62%
		OR	3.0	6.5	46%
		WA	0.7	1.7	41%
	2009	CA	12.0	22.9	52%
		OR	3.0	16	19%
		WA	0.5	4.9	10%
Cowcod south 40°10 N. Lat	2005	CA	0.2	N/A	N/A
	2006	CA	0.2		
	2007	CA	0.3		
	2008	CA	0.3		
	2009	CA	0.3		
Yelloweye	2005	CA	1.9	N/A	N/A
		OR	4.1	N/A	N/A
		WA	5.2		
	2006	CA	3.5	3.7	95%
		OR	2.5	3.3	77%
		WA	1.7	3.4	49%
	2007	CA	8.0	2.1	381%
		OR	2.8	3.3	85%
		WA	2.5	3.5	71%
	2008	CA	1.7	2.1	81%
		OR	3.2	3.3	97%
		WA	2.4	3.5	69%
	2009	CA	3.9	2.8	139%
		OR	2.0	2.4	83%
		WA	1.6	2.7	59%

*There is one HG Federally specified for WA and OR. Values in the table represent the state's informal agreement for sharing of the Federal HG.