

Recent Year Catch Estimates Relevant to Deciding a Range of 2009-2010 Management Measures

- 2007 Projected mortality impacts (mt) under current regulations. Final update - November 2006 Council meeting.
- Table 16. Estimated total mortality of major west coast groundfish species during 2006, by sector.
- 2005 Status Report of California Recreational Harvest for Specific Groundfish.
- 2006 Status Report of California Recreational Harvest for Specific Groundfish.
- 2007 Status Report of California Recreational Harvest for Specific Groundfish.
- Preliminary estimated total catch (mt) of canary and yelloweye rockfish in 2007 Washington, Oregon, and California recreational fisheries relative to specified harvest guidelines.
- Initial 2009-2010 Catch Sharing Options for Canary and Yelloweye Rockfish.

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11/17/2006 9 a.m.

Fishery	Bocaccio b/	Canary	Cowcod	Dkbl	POP	Widow	Yelloweye
Limited Entry Trawl- Non-whiting	48.0	7.9	2.8	233.1	101.1	0.7	0.1
Limited Entry Trawl- Whiting							
At-sea whiting motherships					1.0		0.0
At-sea whiting cat-proc		4.7		25.0	2.9	200.0	0.0
Shoreside whiting					1.8		0.0
Tribal whiting		0.7		0.0	0.6	6.1	0.0
Tribal							
Midwater Trawl		1.8		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
Limited Entry Fixed Gear		1.2		1.3	0.4		2.9
Sablefish			0.0			0.0	
Non-Sablefish	13.4		0.1			0.5	
Open Access: Directed Groundfish		3.0					3.0
Sablefish DTL	0.0			0.2	0.1	0.0	
Nearshore (North of 40°10' N. lat.)	0.0		0.1	0.0	0.0	0.1	
Nearshore (South of 40°10' N. lat.)	0.0			0.0	0.0		
Other	10.6			0.0	0.0	0.0	
Open Access: Incidental Groundfish							
CA Halibut	0.1	0.0		0.0	0.0		
CA Gillnet c/	0.5			0.0	0.0	0.0	
CA Sheephead c/				0.0	0.0	0.0	0.0
CPS- wetfish c/	0.3						
CPS- squid d/							
Dungeness crab c/	0.0		0.0	0.0	0.0		
HMS b/		0.0	0.0	0.0			
Pacific Halibut c/	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pink shrimp	0.1	0.1	0.0	0.0	0.0	0.1	0.1
Ridgeback prawn	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Salmon troll	0.2	0.8	0.0	0.0	0.0	0.3	0.2
Sea Cucumber	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Spot Prawn (trap)							
Recreational Groundfish e/							
WA		5.7					6.2
OR						1.4	
CA	98.0	8.3	0.4			8.0	1.7
Research: Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs. f/							
	2.0	7.5	0.1	3.8	3.6	0.9	2.0
TOTAL	173.3	43.3	3.5	263.5	115.2	258.1	18.6
2007 OY	218	44.0	4.0	290	150	368	23
Difference	44.7	0.7	0.5	26.6	34.8	110.0	4.4
Percent of OY	79.5%	98.4%	87.5%	90.8%	76.8%	70.1%	80.7%
Key		= either not applicable; trace amount (<0.01 mt); or not reported in available data					

a/ All numbers reflect projected annual total catches except that the non-tribal "Limited Entry Trawl- Whiting" numbers are the total bycatch caps for canary, darkblotched, and widow rockfish.

b/ South of 40°10' N. lat.

c/ Mortality estimates are not hard numbers; based on the GMT's best professional judgment.

d/ Bycatch amounts by species unavailable, but bocaccio occurred in 0.1% of all port samples and other rockfish in another 0.1% of all port samples (and squid fisheries usually land their whole catch).

e/ Values in scorecard represent projected impacts. However, harvest guidelines for 2007 are as follows: canary in WA and OR combined = 8.2 mt and in CA = 9.0 mt; yelloweye in WA and OR combined = 6.8 mt and in CA = 2.1 mt.

f/ Research projections only updated for canary rockfish in November 2006. The other species' updates will be updated in March 2007.

Table 16.--Estimated total mortality (mt) of major west coast groundfish species during 2006, by sector.

	Shoreside commercial fisheries				All at-sea hake fisheries	Shore-side WA Tribal	Total recreational fishing mortality			Research	Remaining GMT Scorecard ³ Values	Estimated total fishing mortality
	Estimated non-hake trawl ¹	Estimated hake trawl	Estimated non-trawl ²	Total shoreside mortality			CA	OR	WA			
Non-rebuilding species												
Sablefish mortality	2,654	11.0	3,119	5,785	2	669	0.0	2.1	0	11		6,470
Shortspine thornyhead	649	0.1	178	827	0.5	21	0.0	0	0	4		853
Longspine thornyhead	821	0	21	843	0.0		0	0	0	11.6		854
Dover sole	7,476	0.0	5	7,480	0.0	221	0	0.0	0	28.8		7,730
Petrale sole	2,690	0.0	4	2,694	0	26	0.5	0.0	0	2.3		2,723
English sole	1,291	0.0	0.0	1,291	0.0	42	0.0	0.0	0	2.5		1,336
Arrowtooth flounder	2,818	2.3	79	2,899	2.8	197	0	0.0	0	6.1		3,105
Other Flatfish	1,855	0.1	4	1,859	0.3	60	27.6	3.3	0.2	11.8		1,962
Blackgill rockfish ³	66	na	57	123	na	na	0	na	na	0.4		123
Splitnose rockfish ³	159	na	0	160	na	na	0	na	na	2.1		162
Other slope rockfish N	187	2.8	58	248	8.2	25	0	0.0	0	2.5		283
Other slope rockfish S	122	na	10	132	na	na	0.0	na	na	1.3		133
Yellowtail rockfish ⁴	32	153.7	3	189	109	172	0.4	8.7	13.9	1.2		493
Chilipepper rockfish ⁵	116	na	0	116	na	na	1.6	na	na	8.3		126
Other shelf rockfish N	46	9.2	18	73	4	10	5.8	6.3	0.6	4.6		104
Other shelf rockfish S	22	na	35	57	na	na	275	na	na	3.1		334
Black rockfish	5	0	156	161	0.0	0.0	186	281	268	0		896
Other nearshore rockfish N	3	0.1	34	37	0.0	1.1	18.3	31.5	7.9	0.0		96
Other nearshore rockfish S	0	na	61	61	na	na	649	na	na	0.0		711
Lingcod mortality	272	5.4	100	378	3.2	45	348	127	47	5.3		952
Cabezon	0	0	51	51	0	0	31.6	18.7	4.3	0		106
Kelp greenling	0	0	17	17	0	0	8.2	21.7	1.6	0.0		48
Pacific hake	942	97,078	0	98,021	139,774	29,896	0.1	0.1	0	16.0		267,707
Pacific cod	344	0.9	0.5	346	0.1	36	0	0.0	3.5	0.2		385
Spiny dogfish	666	33.2	563	1,262	59	77	3.9	0.0	0	5.8		1,407
Longnose+big+Unsp. skate	780	1.7	198	980	0.8	39	1.1	0	1.6	7.3		1,029
Other groundfish	842	1.7	78	922	1.0	0.9	88.6	0.0	0.2	2.6		1,015
Rebuilding species												
Canary rockfish	23.7	1.6	2.9	28.2	1.1	2.9	12.3	2.9	1.1	7.2	1.3	57.0
Widow rockfish	6.5	47.9	0.8	55.2	143.3	9.9	3.3	1.1	0	0.2	0.9	213.8
Yelloweye rockfish	1.4	0.1	1.5	2.9	0.0	0.5	4.1	2.5	1.7	0.1	0.4	12.2
Bocaccio ⁵	18.8	na	0.0	18.8	na	na	42.0	na	na	0.2	0.3	61.3
Cowcod ⁵	0.9	na	0	0.9	na	na	0.2	na	na	0.0	0.0	1.1
Pacific ocean perch ⁶	71.7	0.1	0.3	72.1	3.1	3.9	0	0	0	1.2	0.0	80.3
Darkblotched rockfish	178.5	2.1	0.5	181.1	11.1	0.1	0	0	0	0.9	0.0	193.3

¹ Includes minor landings by trawlers not targeting groundfish

² Includes minor landings made with troll gear

³ The Pacific Fishery Management Council's Groundfish Management Team Bycatch Scorecard (Table 17) contains estimates of mortality from non-groundfish fisheries for species that are managed under rebuilding plans.

⁴ Amounts in this row are for the area south of 40°10' N. Lat. Northern catch is included in the Other Slope Rockfish category.

⁵ Amounts in this row are for the area north of 40°10' N. Lat. Southern catch is included in the Other Shelf Rockfish category.

⁶ Amounts in this row are for the area south of 40°10' N. Lat. Northern catch is included in the Other Shelf Rockfish category.

⁷ Amounts in this row are for the area north of 40°10' N. Lat.

2005 Status Report of California Recreational Harvest for Specific Groundfish

Note: Estimates of 2005 recreational take are based upon revised California Recreational Fisheries Survey (CRFS) estimates of landed (A), reported dead (in bag) (B1), discarded live (B2), and reported returned dead (B3) fish from January-December 2005.

Species	Management area for report	Harvest target* (mt)	Total annual take (mt)	% of harvest target	North Coast current take (mt)	North-Central Coast current take (mt)	South-Central Coast - Monterey current take (mt)	South-Central Coast - Morro Bay current take (mt)	South Coast current take (mt)
Minor Nearshore RF North ^{1,a}	Between 42° 00' N and 40° 10' N	17.3	11.9	69%	11.9	----	----	----	----
Minor Nearshore RF South ^{2,a}	South of 40° 10' N	383	387	101%	----	155	72	91	69
Black RF ^a	California statewide	175	149	85%	87	56	4.6	1.7	0.1
Cabazon	California	42.1*	41.4	98%	4.6	24.8	0.9	1.9	9.2
Greenlings	California	15.5*	8.1	52%	1.0	6.6	0.4	0.1	0.0
Bocaccio ^a	South of 40° 30' N	60	39.1	65%	----	0.3	2.4	3.6	32.8
Canary RF ^a	California	9.3	3.9	42%	0.6	2.1	0.7	0.4	0.1
Cowcod ^a	South of 40° 30' N	0.4	0.2	50%	----	0.1	0	0	0.1
Lingcod	California	422	242	57%	45.4	121	15.8	32.4	27.6
Widow RF ^a	California	7.0	1.5	21%	0.0	0.8	0.1	0.0	0.6
Yelloweye RF ^a	California	3.7	1.9	51%	0.6	1.2	0.0	0.0	0.0

Bold indicates Harvest Guidelines (*Cabazon and Greenlings = CA Total Allowable Catch, not actively federally managed species)

1. Includes shallow and deeper nearshore rockfish (+ Cowcod, Bocaccio), with the two groups comprised of the following species:
 - Shallow = Black-and-yellow, China, gopher, grass, and kelp rockfishes; and
 - Deeper = Blue, brown, calico, copper, olive, quillback, and treefish rockfishes.
2. Includes all shallow and deeper nearshore rockfish and California Scorpionfish.

All estimates used A+B1+B3 data and (PR1+PR2)*(factor derived from phone effort data for years 2005-2006) as proxy for (PR1+PR2+PAN) except as follows (superscripts):

- a. Catch estimates also include 0.42B2 discard mortality (boat modes only) except California scorpionfish.

2006 Status Report of California Recreational Harvest for Specific Groundfish

Note: Estimates of 2006 recreational take are based upon revised California Recreational Fisheries Survey (CRFS) estimates of landed (A), reported dead (in bag) (B1), discarded live (B2), and reported returned dead (B3) fish from January-December 2006.

Species	Management area for report	Harvest target* (mt)	Total annual take (mt)	% of harvest target	North Coast current take (mt)	North-Central Coast current take (mt)	South-Central Coast - Monterey current take (mt)	South-Central Coast - Morro Bay current take (mt)	South Coast current take (mt)
Minor Nearshore RF North ^{1,a}	Between 42° 00' N and 40° 10' N	17.3	16.0	92%	16.0	----	----	----	----
Minor Nearshore RF South ^{2,a}	South of 40° 10' N	383	595	155%	----	322	73	102	97
Black RF ^a	California statewide	171	170	99%	95	59	10.0	3.8	2.3
Cabazon	California	42.1*	27.5	65%	4.3	17.8	0.9	2.0	2.4
Greenlings	California	15.5*	8.1	52%	1.6	5.5	1.0	0.1	0.0
Bocaccio ^a	South of 40° 30' N	43	42.5	99%	----	6.6	2.1	3.2	30.5
Canary RF ^a	California	9.3	12.5	134%	0.8	9.7	1.2	0.7	0.2
Cowcod ^a	South of 40° 30' N	0.4	0.2	50%	----	0.0	0.1	0.0	0.1
Lingcod	California	422	301	71%	44.2	201	10.4	21.5	23.0
Widow RF ^a	California	7.0	3.2	46%	0.1	1.7	0.9	0.0	0.5
Yelloweye RF ^a	California	3.7	3.5	95%	1.0	2.5	0.0	0.0	0.0

Bold indicates Harvest Guidelines (*Cabazon and Greenlings = CA Total Allowable Catch, not actively federally managed species)

1. Includes shallow and deeper nearshore rockfish (+ Cowcod, Bocaccio), with the two groups comprised of the following species:

- Shallow = Black-and-yellow, China, gopher, grass, and kelp rockfishes; and
- Deeper = Blue, brown, calico, copper, olive, quillback, and treefish rockfishes.

2. Includes all shallow and deeper nearshore rockfish and California Scorpionfish.

All estimates used A+B1+B3 data and (PR1+PR2)*(factor derived from phone effort data for years 2005-2006) as proxy for (PR1+PR2+PAN) except as follows (superscripts):

- a. Catch estimates also include 0.42B2 discard mortality (boat modes only) except California scorpionfish.

2007 Status Report of California Recreational Harvest for Specific Groundfish

Note: Estimates of 2007 recreational take are based upon revised California Recreational Fisheries Survey (CRFS) estimates of sampler examined landed (A), reported dead (in bag) (B1), discarded live (B2), and returned dead (B3) fish from Jan-Dec (prelim) 2007.

Species	Management area for report	Harvest target* (mt)	Total annual take (mt)	% of harvest target	North Coast current take (mt)	North-Central Coast current take (mt)	South-Central Coast - Monterey current take (mt)	South-Central Coast - Morro Bay current take (mt)	South Coast current take (mt)
Minor Nearshore RF North ^{1,a}	Between 42° 00' N and 40° 10' N	36.3	17.1	47%	17.1	----	----	----	----
Minor Nearshore RF South ^{2,a}	South of 40° 10' N	426	396	93%	----	189	60.4	76.3	68.8
Black RF ^a	California statewide	168	143	85%	91.1	41.5	7.6	2.9	0.1
Cabazon	California	42.0*	21.3	51%	5.0	7.6	1.2	2.6	4.9
Greenlings	California	15.5*	10.7	69%	1.5	8.8	0.4	0.1	0.0
Bocaccio ^a	South of 40° 30' N	66.3	53.4	81%	----	3.7	2.1	3.1	44.7
Canary RF ^a	California	9.0	10.9	121%	1.2	6.4	1.8	1.0	0.5
Cowcod ^a	South of 40° 30' N	0.3	0.28	93%	----	0.05	0.10	0.00	0.13
Lingcod	California	422	174	41%	49.1	75.7	8.1	16.6	24.5
Widow RF ^a	California	8.0	7.8	98%	0.0	0.6	2.9	0.0	4.3
Yelloweye RF ^a	California	2.1	8.0	381%	2.3	5.6	0.0	0.0	0.0
CA Scorpionfish	California	99	63.8	64%	0	0	0	0	63.8

Bold indicates Harvest Guidelines (*Cabazon and Greenlings = CA Total Allowable Catch, not actively federally managed species)

1. Includes shallow and deeper nearshore rockfish (+ Cowcod, Bocaccio), with the two groups comprised of the following species:

- Shallow = Black-and-yellow, China, gopher, grass, and kelp rockfishes; and
- Deeper = Blue, brown, calico, copper, olive, quillback, and treefish rockfishes.

2. Includes all shallow and deeper nearshore rockfish. CA Scorpionfish pulled out from this group starting 2007.

All estimates used A+B1+B3 data and (PR1+PR2)*(factor derived from phone effort data for years 2005-2006) as proxy for (PR1+PR2+PAN) except as follows (superscript):

a. Catch estimates also include 0.42B2 discard mortality (boat modes only).

Preliminary estimated total catch of canary and yelloweye rockfish in 2007 Washington, Oregon, and California recreational fisheries relative to specified harvest guidelines.

Fishery	Canary	Yelloweye
WA rec.	1.1	2.5
OR rec.	2.5	2.8
Total	3.6	5.3
WA&OR shared HG	8.2	6.8
Remaining yield	4.6	1.5
CA rec.	10.9	8.0
CA HG	9.0	2.1
Remaining yield	-1.9	-5.9

Initial 2009-2010 Catch Sharing Options for Canary and Yelloweye Rockfish.

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OY Alternatives for Canary and Yelloweye 2009-2010

2009	OY-Alt 1	OY-Alt 2	OY-Alt 3	OY-Alt 4	OY-Alt 5	OY-Alt 6	Preferred
Canary	0	35	44	85	105	155	Ttarget=2021
Yelloweye	0	13	17	15			17

2010	OY-Alt 1	OY-Alt 2	OY-Alt 3	OY-Alt 4	OY-Alt 5	OY-Alt 6	Preferred
Canary	0	35	44	85	105	155	Ttarget=2021
Yelloweye	0	14	14	15			14

Projected Mortality by Sector from 2007-08 EIS

Projected Mortality by Sector	2007			
	Canary	Percentage	Yelloweye	Percentage
LE Trawl- Non-Whiting	7.9	24.09%	0.1	0.7%
LE Trawl- Whiting	4.7	14.33%	0	0.0%
OA: Directed	2.1	6.40%	2.4	17.5%
LE Fixed Gear	0.9	2.74%	2.3	16.8%
Rec: WA	1.7	5.18%	3.5	25.5%
Rec: OR	6.5	19.82%	3.3	24.1%
Rec: CA	9	27.44%	2.1	15.3%
Sub-Total	32.8	100.00%	13.7	100.0%
LE Trawl- Tribal Whiting	1.6		0	
Tribal	3.4		2.3	
OA: Incidental	2.2		0.6	
Research	3		3	
EFP	0.4		0.1	
Sub-Total	10.6		6	
Grand Total	43.4		19.8	
OY	44		23	

2009 Canary and Yelloweye Catch Sharing Options
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OY Alt-2	2009			
	Projected Mortality by Sector	Percentage	Canary	Percentage
LE Trawl- Non-Whiting	24.09%	5.9	0.73%	0.1
LE Trawl- Whiting	14.33%	3.5	0.00%	0.0
OA: Directed	6.40%	1.6	17.52%	1.2
LE Fixed Gear	2.74%	0.7	16.79%	1.2
Rec: WA	5.18%	1.3	25.55%	1.8
Rec: OR	19.82%	4.8	24.09%	1.7
Rec: CA	27.44%	6.7	15.33%	1.1
Sub-Total	100.00%	24.4	100.00%	7

OY Alt-3	2009			
	Projected Mortality by Sector	Percentage	Canary	Percentage
LE Trawl- Non-Whiting	24.09%	8.0	0.73%	0.1
LE Trawl- Whiting	14.33%	4.8	0.00%	0.0
OA: Directed	6.40%	2.1	17.52%	1.9
LE Fixed Gear	2.74%	0.9	16.79%	1.8
Rec: WA	5.18%	1.7	25.55%	2.8
Rec: OR	19.82%	6.6	24.09%	2.6
Rec: CA	27.44%	9.2	15.33%	1.7
Sub-Total	100.00%	33.4	100.00%	11

OY Alt-4	2009			
	Projected Mortality by Sector	Percentage	Canary	Percentage
LE Trawl- Non-Whiting	24.09%	17.9	0.73%	0.1
LE Trawl- Whiting	14.33%	10.7	0.00%	0.0
OA: Directed	6.40%	4.8	17.52%	1.6
LE Fixed Gear	2.74%	2.0	16.79%	1.5
Rec: WA	5.18%	3.9	25.55%	2.3
Rec: OR	19.82%	14.7	24.09%	2.2
Rec: CA	27.44%	20.4	15.33%	1.4
Sub-Total	100.00%	74.4	100.00%	9

OY Alt-5	2009	
	Projected Mortality by Sector	Canary
LE Trawl- Non-Whiting	24.09%	22.7
LE Trawl- Whiting	14.33%	13.5
OA: Directed	6.40%	6.0
LE Fixed Gear	2.74%	2.6
Rec: WA	5.18%	4.9
Rec: OR	19.82%	18.7
Rec: CA	27.44%	25.9
Sub-Total	100.00%	94.4

OY Alt-6	2009	
	Projected Mortality by Sector	Canary
LE Trawl- Non-Whiting	24.09%	34.8
LE Trawl- Whiting	14.33%	20.7
OA: Directed	6.40%	9.2
LE Fixed Gear	2.74%	4.0
Rec: WA	5.18%	7.5
Rec: OR	19.82%	28.6
Rec: CA	27.44%	39.6
Sub-Total	100.00%	144.4

2010 Canary and Yelloweye Catch Sharing Options

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OY Alt-2	2010			
	Projected Mortality by Sector	Percentage	Canary	Percentage
LE Trawl- Non-Whiting	24.09%	5.9	0.73%	0.1
LE Trawl- Whiting	14.33%	3.5	0.00%	0.0
OA: Directed	6.40%	1.6	17.52%	1.4
LE Fixed Gear	2.74%	0.7	16.79%	1.3
Rec: WA	5.18%	1.3	25.55%	2.0
Rec: OR	19.82%	4.8	24.09%	1.9
Rec: CA	27.44%	6.7	15.33%	1.2
Sub-Total	100.00%	24.4	100.00%	8

OY Alt-3	2010			
	Projected Mortality by Sector	Percentage	Canary	Percentage
LE Trawl- Non-Whiting	24.09%	8.0	0.73%	0.1
LE Trawl- Whiting	14.33%	4.8	0.00%	0.0
OA: Directed	6.40%	2.1	17.52%	1.4
LE Fixed Gear	2.74%	0.9	16.79%	1.3
Rec: WA	5.18%	1.7	25.55%	2.0
Rec: OR	19.82%	6.6	24.09%	1.9
Rec: CA	27.44%	9.2	15.33%	1.2
Sub-Total	100.00%	33.4	100.00%	8

OY Alt-4	2010			
	Projected Mortality by Sector	Percentage	Canary	Percentage
LE Trawl- Non-Whiting	24.09%	17.9	0.73%	0.1
LE Trawl- Whiting	14.33%	10.7	0.00%	0.0
OA: Directed	6.40%	4.8	17.52%	1.6
LE Fixed Gear	2.74%	2.0	16.79%	1.5
Rec: WA	5.18%	3.9	25.55%	2.3
Rec: OR	19.82%	14.7	24.09%	2.2
Rec: CA	27.44%	20.4	15.33%	1.4
Sub-Total	100.00%	74.4	100.00%	9