

THE GROUND FISH MANAGEMENT TEAM (GMT) REPORT ON CONSIDERATION OF INSEASON ADJUSTMENTS

The Groundfish Management Team (GMT) considered the most recent information from the West Coast Groundfish Observer Program and the status of ongoing fisheries and provides the following considerations and recommendations for 2008.

RECREATIONAL

At this time it is unclear what effect salmon restrictions will have on effort in the groundfish recreational fisheries. Depending on the amount of effort shift predicted, changes to inseason management may or may not be necessary. The states will continue to monitor catch and effort inseason and revisit this issue at future Council meetings.

California

In September 2007, California Department of Fish and Game (CDFG) proposed and implemented inseason actions to keep the recreational fishery within their harvest guidelines for canary (9.0 mt) and yelloweye rockfish (2.1 mt). Despite inseason action, the harvest guidelines for yelloweye and canary rockfish were exceeded by 5.9 mt and 1.9 mt, respectively. For 2008, CDFG developed management measures to reduce the projected catch of these species in order to stay within recreational harvest guidelines. The GMT discussed the proposal, though at this time, no formal CDFG Report has been submitted to the Council under this agenda item. The proposed management actions include:

- 20 fm depth restriction in the Northern and North-Central Management Areas;
- implementation of five Yelloweye Rockfish Conservation Areas (YRCAs) north of Point Arena (38°57' N. lat.) to the Oregon/California border in state waters (3 nmi);
- the use of the Point Arena (38° 57' N. lat.) management line to refine management measures such as season or depth restrictions within the North-Central Management Area; and
- improved monitoring and tracking of catch for inseason management.

The 20 fm depth restriction and the use of the Point Arena management line are available inseason and for conforming Federal action since they were analyzed in the 2007/2008 SPEX process. The YCRA boundaries were not analyzed in the SPEX, but since they are located within state waters can be implemented in state rule and Federal conforming action is not necessary.

The GMT discussed the proposal and examined the methodologies to estimate catch savings. The GMT has not reviewed, nor approved, the quantitative modeling approach proposed in the CDFG proposal; only the concepts and proposed management measures. The California GMT representative informed the team that while the quantitative modeling results were not available for review, the final numbers result in impacts slightly less than the harvest guidelines for canary and yelloweye rockfish.

In order to facilitate the Council process and timeline, the current scorecard contains the California recreational harvest guidelines for canary (9.0 mt), yelloweye (2.1 mt), and widow (8.0 mt). These numbers were based on the belief that the team will be able to review the quantitative modeling approach later today, the results are near the harvest guidelines, and that a formal CDFG Report will be forthcoming for advisory body and Council review. If these steps are not accomplished today, status quo impacts to the California recreational fisheries will be placed in the scorecard (canary = 11.5 mt, yelloweye = 8.5 mt, Boccaccio 49.5, cowcod = 0.1, widow = 6.1 mt) for the final inseason agenda item on Friday (Agenda Item F.7), possibly disrupting inseason actions taken under this agenda item.

COMMERCIAL

Limited Entry Non-Tribal Whiting Trawl

Bycatch limits

The GMT examined two approaches for setting bycatch limits for the 2008 fishery (Supplemental GMT Report under Agenda Item F.3). The first is the status quo bycatch modeling approach where bycatch is estimated using a weighted average (canary, darkblotched, POP, yelloweye) and a linear interpolation (widow) from 2004-2007 fishery data, based on the commercial optimum yield (OY) recommended by the Council under Agenda Item F.3. This approach assumes that fleet depth distributions are similar to 2004-2007. The second approach uses increased darkblotched limits to influence deeper fleet depth distributions, which would reduce projected impacts to canary and widow, compared to the first approach. It is estimated that a darkblotched bycatch limit of 41 mt may provide a large enough limit to provide fishing strategy flexibility in deeper waters. The projected bycatch of overfished species under each approach associated with the 2008 OY, are shown in Tables 1a and 1b.

Table 1a. Projected impacts on overfished species based on the status quo bycatch modeling approach and fleet depth distributions from 2004-2007.

U.S. whiting OY (mt)	Commercial OY (mt)	Commercial Sector	Allocation (mt)	Projected catch (mt)				
				Canary	DB	POP	Widow	
269,545	232,545 (U.S. OY minus 2,000 mt for research and other fishery catch, minus 35,000 mt for the tribal allocation.)	Mothership	55,811	2.1	6.19	1.13	107.2	
		Catcher	79,065	0.3	6.18	1.16	130.3	
		Processor						
		Shoreside	97,669	1.6	2.9	0.3	127.0	
		TOTAL	232,545	4.2	15.4	2.6	364.4	

Table 1b. Projected impacts of a 41.0 mt darkblotched bycatch limit on canary and widow rockfish, assuming deeper at-sea fleet depth distributions.

U.S. whiting OY (mt)	Commercial OY (mt)	Projected catch (mt)	
		Canary	Widow
269,545	232,545 (U.S. OY minus 2,000 mt for research and other fishery catch, minus 35,000 mt for the tribal allocation.)	3.0	295.6

Under the 2008 U.S. whiting OY, and for either bycatch limit approach that may be adopted by the Council, projected yelloweye rockfish impacts are below 0.05 mt and thus scorecard values would be 0.0 mt.

The non-tribal whiting fleetwide bycatch limits specified in Federal Regulations for the 2008 whiting fishery are currently: 4.7 mt for canary rockfish, 25 mt for darkblotched rockfish, and 275 mt for widow rockfish.

The GMT recommends that the Council adopt a darkblotched bycatch limit of approximately 41 mt in order to encourage deeper fleet depth distributions. When considering appropriate bycatch limits for canary and widow rockfish, the GMT recommends the Council take into consideration the projected impacts to these species under this effort distribution (Table 1.b).

Open Access

Sablefish Daily Trip Limit Fishery (DTL)

The GMT considered restrictions to management measures in DTL fishery due to increased participation as a result of a poor salmon season. At this time it is unclear what effect salmon restrictions will have on effort in the DTL fishery. Depending on the amount of effort shift predicted, changes to inseason management may be necessary. The GMT will revisit this issue at the April Council meeting.

Limited Entry Non-whiting Trawl Fishery North of 40°10' N. lat. and the Open Access Nearshore Fishery North and South of 40°10' N. lat.

Introduction

The GMT developed two options for commercial inseason adjustments in the limited entry non-whiting trawl fishery north of 40°10' N. lat. and the open access nearshore fishery north and south of 40°10' N. lat. These two options focus on reducing canary impacts in the nearshore and non-whiting trawl fisheries. Option 1 reduces canary impacts in the non-whiting trawl fishery more than Option 2 by incorporating more restrictive RCA boundaries, but leaves open access nearshore groundfish fisheries unaffected. Option 2 reduces canary impacts in the limited entry non-whiting trawl fishery from status quo, but not as severely as Option 1, and reduces canary impacts in the open access nearshore fishery to 1.7 metric tons (the impact estimated for this fishery in 2007).

These two options result in canary impacts that exceed the 2008 canary rockfish OY if no other adjustments are made to other fisheries. In Option 1, canary impacts are estimated to be 0.4 metric tons over the 2008 canary rockfish OY, while Option 2 results in canary impacts that are estimated to be 0.2 metric tons over the OY. The GMT requests Council guidance on how to achieve the necessary catch reductions in order to bring estimated catch levels within the OY. Additionally, the GMT will meet with the GAP to explore further options.

Open Access Nearshore Commercial Fisheries North and South of 40°10' N. lat.

The GMT considered restrictions to management measures in the nearshore commercial open access fishery due to higher than anticipated impacts on canary rockfish as a result of the latest bycatch rates. Based on that information, the encounter rate for canary rockfish is several times higher in the open access fishery south of 40°10' N. lat. than originally predicted. Projected canary rockfish impacts under previous bycatch rates were 1.7 mt., while impacts based on updated rates are 3.0 mt under status quo management measures. The GMT explored restrictions in management measures to reduce the projected impacts of the open access commercial nearshore fishery back down to 1.7 mt (see Table 2). Due to low canary impacts south of 34°27' N. lat., no changes are proposed for this area of the coast.

Table 2. Projected impacts of possible adjustments to management measures for the open access nearshore fishery.

Range of Options	Canary Impacts	Sector Total
<i>Status Quo</i>		
North of 40°10' N. lat – 30 fm RCA	1.32	3.03
Between 40°10' and 34°27' N. lat – 30 fm RCA	1.71	<i>Option 1</i>
<i>Depth Restrictions</i>		
North of 40°10' N. lat – 20 fm RCA+ 30% target catch reduction	0.87	1.7
Between 40°10' and 34°27' N. lat – 20 fm RCA+ 50% target catch reduction	0.81	

The GMT would like to point out that although the open access nearshore fishery is currently open north of 40°10' N. lat., it is closed until May 1, 2008 south of 40°10' N. lat.

The GMT could explore more refined area management to address reductions of canary impacts in the open access nearshore fishery between 40°10' N. lat. and 34 27' N. lat. and will request observer data to inform this analysis. However, this analysis is not likely possible in the near term.

Limited Entry Non-Whiting Trawl Fishery North of 40°10' N. lat.

In the fall of 2007, the Northwest Fisheries Science Center (NWFSC) released the most recent observer data. This data covered the period from 2006 through the first several months of 2007. At the November meeting, the GMT generally used the past practice of incorporating this latest

data by utilizing a weighted average approach which combined the most recent observer data with observer data from prior years. In addition to this approach, however, the GMT attempted to tease apart the effect of a correlation between arrowtooth flounder and canary rockfish that appeared to exist in the latest observer data. At the time, the information suggested a lower canary bycatch rate should be expected if arrowtooth targeting in the areas shoreward of the RCA was eliminated. However, according to industry representatives, the apparent correlation is coincidental. This leads to higher canary rockfish bycatch rates than would be the case if a correlation could be identified. Data from year to year indicates substantial changes in the canary bycatch rate annually by sub-area. The wide degree of variation suggests that broader restrictions should be put in place than what occurred during 2007. Namely, that restriction to protect canary may need to be applied to a wider portion of the Washington coast, the southern Oregon coast, and northern California coast than previously thought. The following figure illustrates canary bycatch rates shoreward of the trawl RCA by observer year and sub-area.

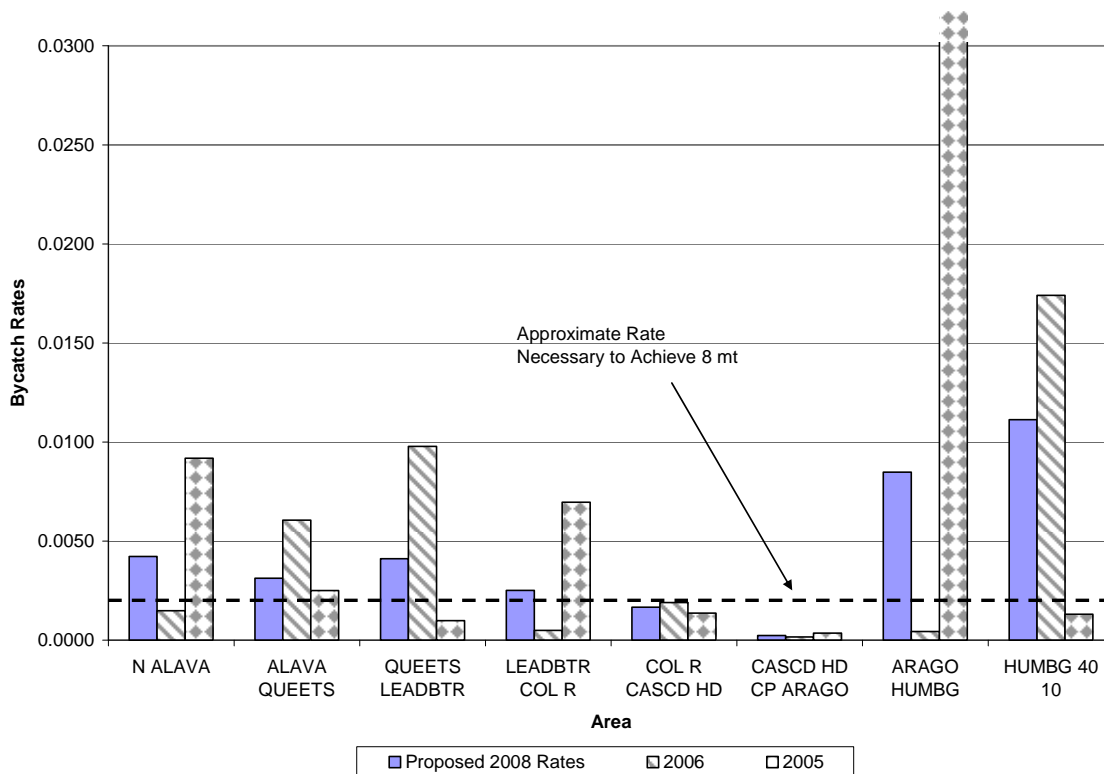


Figure 1 Canary Bycatch Rates in the Non-Whiting Trawl Fishery by Sub-Area and Year (75 fathoms)

In February of 2008, the NWFSC released the latest report estimating the total mortality of groundfish in the 2006 calendar year. This report shows that the catch of canary rockfish in the non-whiting trawl fishery during 2006 was substantially higher than estimated by the GMT during that same year. In addition, using the bycatch rates from that year within the GMT trawl model and re-estimating the 2006 impacts continued to result in the model under-projecting canary rockfish on a coastwide basis. In the north, the model under-projected canary rockfish bycatch by 33 percent, while in the south the model over-projected by approximately 6 percent. Based on this comparison, bycatch rates for canary rockfish in the trawl model were scaled upward by 33 percent in the north, and down by 6 percent in the south. The result is a substantially higher canary rockfish impact estimate in the 2008 fishery than estimated at the November 2007 Council meeting.

Tables 3a and 3b show the results of using the old bycatch rates (Table 3a, as presented at the November 2007 Council meeting) and the result of modifying those rates based the revised methodology adopted by the GMT.

Table 3a Estimated Mortality in the 2008 Non-Whiting Trawl Fishery at the November 2007 Council meeting

		North	South	Total
Rebuilding Species	Canary	5.3	2.7	8.0
	POP	80.9	0.0	80.9
	Darkbltch	180.5	28.5	209.1
	Widow	1.6	5.1	6.6
	Bocaccio	-	11.5	11.5
	Yeye	0.5	0.0	0.5
	Cowcod	-	1.4	1.4
Target Species	Sablefish	1,909	477	2,386
	Longsp	509	385	894
	Shortsp	754	244	998
	Dover	8,212	2,191	10,403
	Arrowth	1,443	64	1,507
	Petrals	1,937	347	2,284
	Otr Flat	1,431	559	1,989
	Slope Rocl	45	115	160

Table 3b Estimated Mortality in the 2008 Non-Whiting Trawl Fishery as a Result of Modified Bycatch Rates

		North	South	Total
Rebuilding Species	Canary	13.6	2.7	16.3
	POP	80.9	0	80.9
	Darkblotch	180.5	28.5	209.1
	Widow	1.6	5.1	6.6
	Bocaccio		11.5	11.5
	Yeye	0.5	0	0.5
	Cowcod		1.4	1.4
Target Species	Sablefish	1,909	477	2,386
	Longspine	509	385	894
	Shortspine	754	244	998
	Dover	8,212	2,191	10,403
	Arrowtooth	1,443	64	1,507
	Petrals	1,937	347	2,284
	Other Flat	1,431	559	1,989
	Slope Rock	45	115	160

GMT Recommendations:

Limited Entry trawl, non-tribal whiting bycatch limits

- The GMT recommends that the Council adopt a darkblotched bycatch limit of approximately 41 metric tons in order to encourage deeper fleet depth distributions. When considering appropriate bycatch limits for canary and widow rockfish, the GMT recommends the Council take into consideration the projected impacts to these species under this effort distribution (Table 1.b). This action is scheduled for completion under Agenda Item F.3 on Friday.

Open Access Sablefish Daily Trip Limit Fishery

- The GMT recommends revisiting this issue at the April Council meeting.

Limited Entry Non-whiting Trawl Fishery North of 40°10' N. lat. and the Open Access Nearshore Fishery North and South of 40°10' N. lat.

- The GMT recommends that the Council consider Option 1 and Option 2 adjustments for these fisheries and provide guidance.

Table 4: Non-Whiting Trawl Cumulative Limits Are the Same Under Option 1 and Option 2

		RCA Config		Sable	Longsp	Shortsp	Dover	Otr Flat	Petrals	Arrowth	Slope Rk
SUBAREA	Period	INLINE	OUTLINE								
N 40 10 Large Footrope	1			14,000	25,000	25,000	80,000	110,000	40,000	150,000	2,500
	2			14,000	25,000	25,000	80,000	110,000	30,000	150,000	2,500
	3	see attached table		19,000	25,000	25,000	80,000	110,000	20,000	150,000	2,500
	4			19,000	25,000	25,000	80,000	110,000	20,000	150,000	2,500
	5			19,000	25,000	25,000	80,000	110,000	20,000	150,000	2,500
	6			14,000	25,000	25,000	80,000	110,000	40,000	150,000	2,500
N 40 10 SFFT	1			5,000	3,000	3,000	40,000	70,000	10,000	10,000	3,000
	2			5,000	3,000	3,000	50,000	70,000	18,000	10,000	3,000
	3	see attached table		5,000	3,000	3,000	40,000	50,000	18,000	10,000	3,000
	4			5,000	3,000	3,000	40,000	50,000	18,000	10,000	3,000
	5			5,000	3,000	3,000	40,000	50,000	18,000	10,000	3,000
	6			5,000	3,000	3,000	40,000	50,000	10,000	10,000	3,000
40 10 - 38	1	100	150	14,000	25,000	12,000	80,000	110,000	50,000	10,000	15,000
	2	100	150	14,000	25,000	12,000	80,000	110,000	30,000	10,000	15,000
	3	100	150	19,000	25,000	12,000	80,000	110,000	30,000	10,000	15,000
	4	100	150	19,000	25,000	12,000	80,000	110,000	30,000	10,000	15,000
	5	100	150	19,000	25,000	12,000	80,000	110,000	30,000	10,000	15,000
	6	100	150	14,000	25,000	12,000	80,000	110,000	50,000	10,000	15,000
S 38	1	100	150	14,000	25,000	12,000	80,000	110,000	50,000	10,000	55,000
	2	100	150	14,000	25,000	12,000	80,000	110,000	30,000	10,000	55,000
	3	100	150	19,000	25,000	12,000	80,000	110,000	30,000	10,000	55,000
	4	100	150	19,000	25,000	12,000	80,000	110,000	30,000	10,000	55,000
	5	100	150	19,000	25,000	12,000	80,000	110,000	30,000	10,000	55,000
	6	100	150	14,000	25,000	12,000	80,000	110,000	50,000	10,000	55,000

Table 5a: Trawl RCA Boundaries in the North under Option 1

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area (RCA)							
<i>N Alava</i>	North of 48°10.00' N. lat.	shore - modified 200 fm	shore - 200 fm	shore - 150 fm		shore - 150 fm	shore - modified 200 fm
<i>Alava to Queets</i>	48°10.00' N. lat. - 46°38.17' N. lat.	75 fm - modified 200 fm	60 fm - 200 fm	60 fm - 150 fm		75 fm - modified 200 fm	75 fm - modified 200 fm
<i>Queets to Leadbetter</i>	46°38.17' N. lat. - 46°16.00' N. lat.		60 fm - 200 fm	60 fm - 150 fm			
<i>Leadbetter to OR/WA Border</i>	46°16.00' N. lat. - 45°03.83' N. lat.		75 fm - 200 fm	60 fm - 200 fm			
<i>OR/WA Border to Cape Arago</i>	45°03.83' N. lat. - 43°20.83' N. lat.		75 fm - 200 fm				
<i>Cape Arago to Humbug mt</i>	43°20.83' N. lat. - 42°40.50' N. lat.	shore - modified 200 fm	shore - 200 fm				shore - modified 200 fm
<i>Humbug mt to 40 10</i>	42°40.50' N. lat. - 40°10.00' N. lat.	75 fm - modified 200 fm	75 fm - 200 fm	60 fm - 200 fm		75 fm - modified 200 fm	

Table 6a: Estimated Trawl Impacts under Option 1

	North	South	Total
Canary	6.6	2.6	9.1
POP	81.6	0.0	81.6
Darkbltch	225.9	37.7	263.6
Widow	1.6	5.2	6.8
Bocaccio	-	11.6	11.6
Yelloweye	0.6	0.0	0.6
Cowcod	-	-	-
Sablefish	2,015	508	2,523
Longspine	509	385	893
Shortspine	1,002	244	1,245
Dover	8,166	2,191	10,356
Arrowth	1,454	64	1,518
Petrale	1,932	347	2,279
Other Flat	1,492	559	2,051
Slope Rock	49	124	173

Table 5b: Trawl RCA Boundaries in the North under Option 2

		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
Rockfish Conservation Area (RCA)							
<i>N Alava</i>	North of 48°10.00' N. lat.	shore - modified 200 fm	shore - 200 fm	shore - 150 fm		shore - 150 fm	shore - modified 200 fm
<i>Alava to Queets</i>	48°10.00' N. lat. - 46°38.17' N. lat.	75 fm - modified 200 fm	60 fm - 200 fm	60 fm - 150 fm		75 fm - modified 200 fm	75 fm - modified 200 fm
<i>Queets to Leadbetter</i>	46°38.17' N. lat. - 46°16.00' N. lat.		60 fm - 200 fm	60 fm - 150 fm	75 fm - 150 fm		
<i>Leadbetter to OR/WA Border</i>	46°16.00' N. lat. - 45°03.83' N. lat.		75 fm - 200 fm	60 fm - 200 fm			
<i>OR/WA Border to Cape Arago</i>	45°03.83' N. lat. - 43°20.83' N. lat.		75 fm - 200 fm				
<i>Cape Arago to Humbug mt</i>	43°20.83' N. lat. - 42°40.50' N. lat.	shore - modified 200 fm	shore - 200 fm				shore - modified 200 fm
<i>Humbug mt to 40 10</i>	42°40.50' N. lat. - 40°10.00' N. lat.	75 fm - modified 200 fm	75 fm - 200 fm	60 fm - 200 fm		75 - 200 fm	75 fm - modified 200 fm

Table 6b: Estimated Trawl Impacts under Option 2

	North	South	Total
Canary	7.5	2.6	10.2
POP	81.6	0.0	81.6
Darkbltch	214.6	37.7	252.3
Widow	1.6	5.2	6.8
Bocaccio	0.0	11.6	11.6
Yelloweye	0.6	0.0	0.6
Cowcod	0.0	0.0	0.0
Sablefish	2,015	508	2,523
Longspine	509	385	893
Shortspine	1,002	244	1,245
Dover	8,166	2,191	10,356
Arrowth	1,454	64	1,518
Petrale	1,932	347	2,279
Other Flat	1,492	559	2,051
Slope Rock	49	124	173

2008 Projected mortality impacts (mt) of overfished groundfish species under GMT option 1

11/06/07

Fishery	Bocaccio b/	Canary	Cowcod	Dkbl	POP	Widow	Yelloweye
Limited Entry Trawl- Non-whiting	11.6	9.1	0.0	263.6	81.6	6.8	0.6
Limited Entry Trawl- Whiting							
At-sea whiting motherships a/		4.7		25.0	1.9	275.0	0.0
At-sea whiting cat-proc a/					0.0		0.0
Shoreside whiting a/							
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		1.1					2.2
Sablefish	13.4		0.0	0.6	0.3	0.9	
Non-Sablefish			0.1	0.4		0.5	
Open Access: Directed Groundfish		1.0					
Sablefish DTL	0.0	0.2	0.1	0.2	0.1	0.0	0.3
Nearshore (North of 40°10' N. lat.)	0.0	3.0		0.0	0.0	0.5	1.4
Nearshore (South of 40°10' N. lat.)	0.1			0.0	0.0		
Other	10.6			0.0	0.0	0.0	0.1
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	49.5	9.0	0.1			6.1	2.1
EFPs	11.0	0.1	0.2	1.0		3.4	0.1
Research: Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs. f/							
	2.0	5.5	0.2	2.0	2.0	1.1	3.0
TOTAL	99.5	44.4	0.7	292.9	90.2	342.2	18.7
2008 OY	218	44.0	4.0	330	150	368	20
Difference	118.5	-0.4	3.3	37.2	59.8	25.8	1.3
Percent of OY	45.6%	100.9%	17.5%	88.7%	60.2%	93.0%	93.5%
Key		= either not applicable; trace amount (<0.01 mt); or not reported in available					

a/ Non-tribal whiting numbers reflect bycatch limits for the non-tribal whiting sectors.

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 2008 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 updated November 2007.

2008 Projected mortality impacts (mt) of overfished groundfish species under Option 2

11/06/07

Fishery	Bocaccio b/	Canary	Cowcod	Dkbl	POP	Widow	Yelloweye
Limited Entry Trawl- Non-whiting	11.6	10.2	0.0	252.3	78.1	6.8	0.6
Limited Entry Trawl- Whiting							
At-sea whiting motherships a/		4.7		25.0	1.9	275.0	0.0
At-sea whiting cat-proc a/			0.0				
Shoreside whiting a/			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		1.1					2.2
Sablefish	13.4		0.0	0.6	0.3	0.9	
Non-Sablefish			0.1	0.4		0.5	
Open Access: Directed Groundfish		1.0					
Sablefish DTL	0.0	0.2	0.1	0.2	0.1	0.0	0.3
Nearshore (North of 40°10' N. lat.)	0.0	1.7		0.0	0.0	0.5	1.4
Nearshore (South of 40°10' N. lat.)	0.1			0.0	0.0		
Other	10.6			0.0	0.0	0.0	0.1
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	49.5		9.0	0.1			
EFPs	11.0	0.1	0.2	1.0		3.4	0.1
Research: Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs. f/							
	2.0	5.5	0.2	2.0	2.0	1.1	3.0
TOTAL	99.5	44.2	0.7	281.6	86.7	342.2	18.7
2008 OY	218	44.0	4.0	330	150	368	20
Difference	118.5	-0.2	3.3	48.5	63.3	25.8	1.3
Percent of OY	45.6%	100.5%	17.5%	85.3%	57.8%	93.0%	93.5%
Key	= either not applicable; trace amount (<0.01 mt); or not reported in available						

a/ Non-tribal whiting numbers reflect bycatch limits for the non-tribal whiting sectors.

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 2008 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 updated November 2007.