

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

The Groundfish Management Team (GMT) considered the most recent information on the status of fisheries and provides the following considerations and recommendations for 2008.

### **RECREATIONAL**

#### *California*

The GMT considered the California recreational inseason proposal and new CDFG inseason response capabilities (Agenda Item F.5.c Supplemental Revised CDFG Report). CDFG has indicated that the proposed action reduces impacts to overfished species to a level that approximates the harvest guidelines in the scorecard. While the GMT has not had the opportunity to review these actual estimates, the GMT has placed the harvest guidelines for this fishery into the scorecard. Given the proposed management measures and new inseason response capabilities, the GMT believes that the harvest guidelines reflect a better impact estimate than the impacts that correspond to status quo. Thus, the GMT recommends that the Council approve the proposed 2008 California inseason recreational groundfish management measures and conforming actions for the 20 fm depth restriction in the Northern and North-Central Management Area and use of the Pt. Arena management line for refinement of management measures within the North-Central Management Area.

The GMT discussed at length the allocative implications of using harvest guidelines vs. projected impacts in the scorecard. The team notes that if all three states used harvest guidelines, canary impacts would be over-prescribed by 2.5 mt under the current inseason proposals.

### **COMMERCIAL**

#### *Limited Entry Non-Tribal Whiting Trawl*

The GMT considered bycatch limits in the whiting fishery and recommends the following limits and considerations. The GMT recommends that the Council adopt a darkblotched bycatch limit of approximately 40 metric tons and a widow bycatch limit of 275-295.6 mt. During the 2007 season, it was apparent that the increasing biomass of widow rockfish resulted in a higher widow bycatch rate than expected. A review of available data shows an increasing trend over the past 4 years. If this trend continues, an even higher bycatch rate should be expected this year, thus justifying the need for a higher bycatch limit. However, an increase in the darkblotched limit is expected to alter the at-sea fleet depth distribution, leading to a somewhat lower bycatch rate for canary and widow rockfish (Table 1a) than would be expected without an increase in the darkblotched limit (Table 1b).

The GMT recommends that the Council adopt a canary bycatch limit of 4.7 mt. This limit has accommodated the fishery over the past few years and the bycatch scorecard with the proposed inseason actions can accommodate this limit. Furthermore, the GMT is concerned that, if the Council reduces the bycatch limit below 4.7 mt, that this limit would be less likely to reasonably

accommodate the whiting OY. Lowering the bycatch limit may lead to a higher canary bycatch rate than currently assumed in Table 1a. Bycatch rates may potentially be higher than assumed

because industry representatives may not believe that a lower limit can be successfully managed. If this belief is spread across enough participants in the fishery, then it is likely that an accelerated race for fish could ensue, limiting the opportunity to carefully avoid bycatch. Under such conditions, it is likely that communication among the fleets and the existing attempts at cooperative bycatch management would break down and higher bycatch rates would result. The implication would be less whiting harvest than may otherwise be the case, potentially leading to disproportionate losses across the whiting sectors.

The whiting fishery will be in transition from a Federal Exempted Fishing Permit to Amendment 10 during 2008 and it is uncertain what other tools are available to manage whiting fishery bycatch. For example, it is unclear whether fathom lines/depth closures can be used to slow catches of canary and widow. Additionally, it is unclear whether the whiting season could be closed upon projected attainment of a bycatch limit or whether the fishery could be closed upon attainment of a bycatch limit. If the fishery is closed upon attainment of the bycatch limit, it is reasonable to assume that the fishery will take in excess of that limit because of the amount of effort and catch that occurs between the closure notice and actual closure. To avoid jeopardizing the OY, the Council may wish to establish a residual between projected catch in the scorecard and the OY. Based on events that occurred in 2007, a residual of 20 mt or more may need to be established for widow rockfish. However, it is important to note that establishing a residual is only necessary if the Council expects the fishery to be closed as a result of a bycatch limit being reached instead of attainment of the whiting sector allocations. Analysis indicates that if the Council raises the darkblotched limit that the fleet may be able to successfully avoid canary and widow while prosecuting the whiting fishery.

**Table 1a. Projected impacts of a 40.0 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

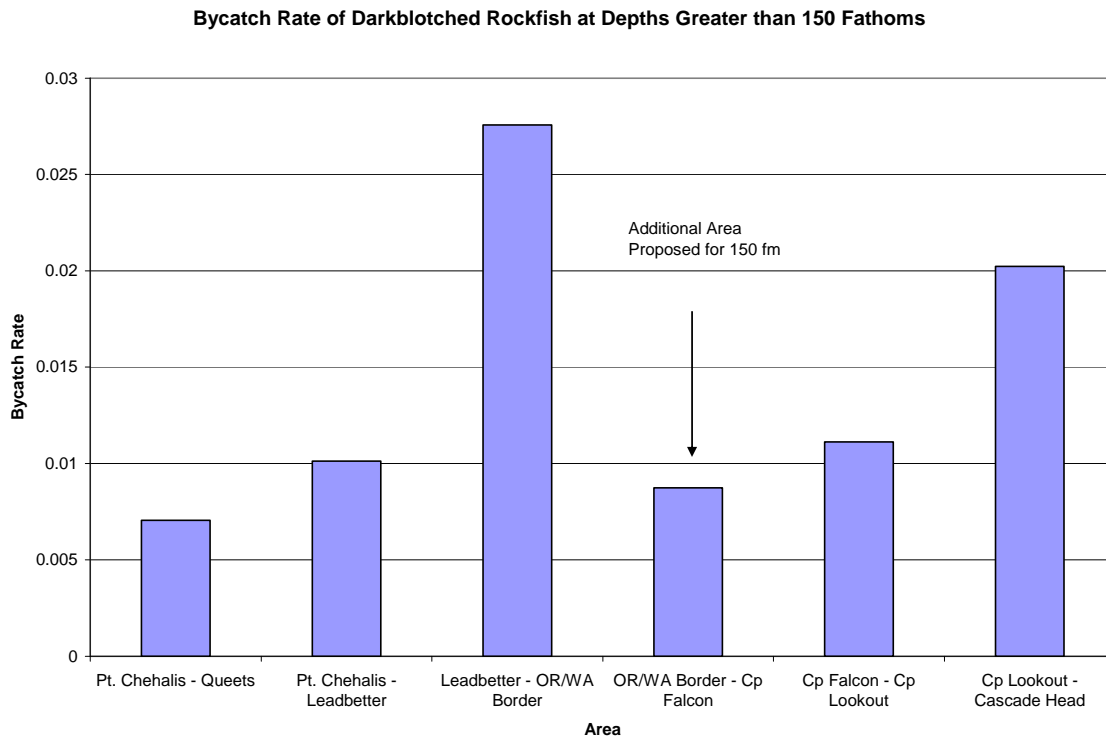
**Table 1b. Projected impacts at the beginning of the year for overfished species, based on the 2008 bycatch modeling approach (described in Agenda Item F.3.B Supplemental GMT report) and fleet depth distributions from 2004-2007.**

Year	U.S. whiting OY (mt)	Commercial OY (mt)	Commercial Sector	Allocation (mt)	Projected catch (mt)			
					Canary	DB	POP	Widow
2008	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	2.93	0.35	127.0
			TOTAL	~	4.0	15.3	2.6	364.5
2007	242,591	208,091	TOTAL	~	3.9	12.4	2.9	217.6

For reference, Appendix A includes the 2007 projected impacts for overfished species, based on the 2007 bycatch modeling approach and OY.

*Limited Entry Non-Whiting Trawl*

The GMT further evaluated non-whiting trawl inseason adjustments for 2008 and focused on strategies that would shift trawl effort to areas seaward of the RCA. Industry members indicated that a 150 fathom line off Washington may not induce as much seaward effort as would be the case if a 150 fathom line was established immediately south of the OR/WA border. A review of available data indicates that darkblotched rockfish (the species of most concern seaward of the RCA in the north) has a relatively low bycatch rate between the OR/WA border and Cape Falcon. Industry members indicated that this area constitutes relatively productive fishing grounds, and therefore would entice trawl vessels to fish seaward of the RCA. The following figure illustrates the bycatch rate of darkblotched in select areas off Washington and Oregon.



**Figure 1 Bycatch Rate of Darkblotched Rockfish Seaward of the Trawl RCA by Subarea**

Based on this information, the GMT proposes shifting the seaward RCA boundary between the OR/WA border (46°16' N. lat.) and Cape Falcon (45°46' N. lat.) to 150 fathoms in periods 3 and 4 (Table 2). Additionally, the GMT recommends that the shoreward boundary of the RCA north of 40°10' N. lat. be shifted to 60 fathoms in all areas except for that area between the OR/WA border and Cape Arago (where the shoreward boundary is proposed at 75 fathoms), between Cape Arago and Humbug mountain (where the RCA is pushed in to shore), and north of Cape Alava (where the RCA is pushed in to shore).

The GMT would like to acknowledge the adverse consequences that the closure north of Cape Alava and between Cape Arago and Humbug mountain has had on members of industry. The GMT was recently made aware that multiple trawlers off northern Washington have left the

fishery because of these closures. However, the GMT proposes to leave the area north of Cape Alava, shoreward of the RCA, closed for the year because logbook, survey, and observer data, and qualitative information indicates that canary abundance is high in that area. The same holds for the area between Cape Arago and Humbug Mountain. Table 2 illustrates the proposed RCA boundaries north of 40°10' N. lat. by sub-area.

**Table 2 Proposed Trawl RCA Boundaries north of 40 10**

Proposed Non-Whiting Trawl RCA Boundaries North of 40 10		JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC	
North of 48°10.00' N. lat.	N Alava	shore - modified 200 fm	shore - 200 fm	shore - 150 fm		shore - modified 200 fm		
48°10.00' N. lat. - 47°31.7' N. lat.	Alava - Queets	75 fm - modified 200 fm	60 fm - 200 fm	<b>60 fm - 150 fm</b>		75 fm - modified 200 fm		
47°31.7' N. lat. - 46°38.17' N. lat.	Queets - Leadbetter		60 fm - 200 fm	<b>60 fm - 150 fm</b>				
46°38.17' N. lat. - 46°16' N. lat.	Leadbetter - ORWA Border		<b>60 fm - 200 fm</b>		60 fm - 150 fm			
46°16.00' N. lat. - 45°46' N. lat.	ORWA Border - Cp Falcon		<b>75 fm - 200 fm</b>	<b>75 fm - 150 fm</b>	<b>75 - 200 fm</b>			
45°46' N. lat. - 43°20.83' N. lat.	Cp Falcon - Cp Arago		<b>75 fm - 200 fm</b>					
43°20.83' N. lat. - 42°40.50' N. lat.	Cp Arago - Humbug mt	shore - modified 200 fm	shore - 200 fm				shore - modified 200 fm	
42°40.50' N. lat. - 40°10.00' N. lat.	Humbug mt - 40 10	75 fm - modified 200 fm	75 fm - 200 fm	<b>60 fm - 200 fm</b>		75 fm - modified 200 fm		

In addition to these proposed RCA boundaries, the following cumulative limits are proposed for the remainder of the year. These limits reduce opportunities for Dover, Other Flatfish, and petrale sole in areas shoreward of the trawl RCA in the north, while increasing opportunities for sablefish coastwide, for shortspine south of 40° 10' N. lat., and for slope rockfish between 38° and 40° 10' N. lat. These limits are intended to encourage vessels to fish seaward of the trawl RCA while providing additional fishing opportunities for sablefish and thornyheads.

**Table 3 Proposed Cumulative Limits for Non-Whiting Trawl**

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

The following mortality estimates are based on the proposed actions above.

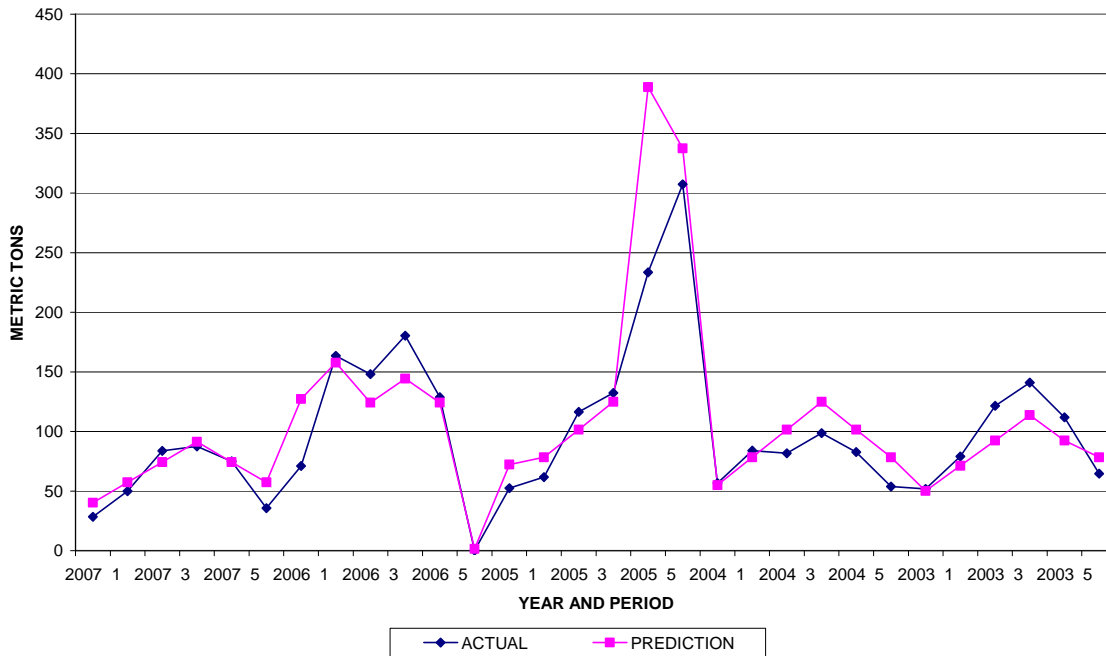
**Table 4 Estimated Impacts from Proposed Trawl RCAs and Cumulative Limits**

	North	South	Total
Canary	6.5	2.6	9.1
POP	81.5	0.0	81.5
Darkbltch	218.1	40.8	258.9
Widow	1.6	5.5	7.1
Bocaccio	-	11.7	11.7
Yelloweye	0.6	0.0	0.6
Cowcod	-	-	-
Sable	2,015	508	2,523
Longspine	509	385	893
Shortsp	1,002	508	1,509
Dover	8,166	2,191	10,356
Arrowth	1,454	64	1,518
Petrals	1,932	347	2,279
Otr Flat	1,492	559	2,051
Slope Rock	46	124	170

*Open Access Sablefish Daily Trip Limit Fishery North of 36°*

The GMT considered the effect of the upcoming poor salmon year on participation in the open access sablefish DTL fishery. Assuming spill over into the DTL fishery is similar to that which occurred as a result of the 2006 salmon season, then the GMT predicts that the open access catch of sablefish will exceed the allocation. Therefore, the GMT explored reductions to fishing opportunities in this fishery in order to prevent exceeding the allocation. According to industry members, a reduction in the daily limit will make fishing opportunities unprofitable for many participants. Based on the GMT model for this fishery, varying the weekly limit does not appear to impact overall catch. Therefore, the GMT proposes reducing the bimonthly limit for open access sablefish north of the Conception area to 2,200 lbs per two months from 2,400 lbs per two months.

**ACTUAL AND PREDICTED SABLEFISH LANDINGS IN THE OPEN ACCESS FISHERY NORTH OF THE CONCEPTION AREA**



**Figure 2 Predicted and Actual Catch in the OA Sablefish Fishery North of 36°**

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

The GMT reviewed the bycatch mortality estimates used to inform the open access nearshore model and determined they were not based on a weighted average, which is the practice historically used by the GMT. Using weighted average bycatch mortality estimates, canary impacts decreased from 3.0 mt to 2.6 mt under status quo management. Yelloweye impacts increased from 1.4 mt to 1.6 mt. The GMT acknowledges that the canary impacts are greater than past projected impacts of 1.7 mt, but are not recommending any changes from status quo management measures at this time.

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.

This morning, the GAP requested an analysis of changes to RCAs between 40°10' N. lat. and 34 27' N. lat. to decrease canary impacts. Unfortunately, given the schedule today, the team is unable to accomplish model runs at this time. However, we will provide this information at the April Council meeting. If RCA boundaries are adopted in April, they can go into effect immediately after the inseason publication of a Federal Register Notice near the start of the southern open access nearshore season (May 1).

*Incidental Canary in the Salmon Troll Fishery*

Currently, the GMT estimates that 0.8 mt of canary rockfish will be taken incidentally by the coastwide salmon troll fishery. This amount was based on a rate estimated from data collected during ride-along observations from 2003-2005 in the salmon troll fishery off the north coast of Washington. Severely reduced salmon troll opportunities south of Cape Falcon, Oregon in 2008 may result in reduced impacts to canary rockfish. The GMT will continue to explore available data sources to inform any changes in the canary rockfish projection after the Council takes final action on salmon troll fisheries in April.

**GMT Recommendations**

1. Recreational
  - a. Approve the proposed 2008 California inseason adjustments
2. Limited entry non-tribal whiting trawl
  - a. Specify a darkblotched bycatch limit of approximately 40 mt
  - b. Specify a widow bycatch limit of 275-295.6 mt
  - c. Specify a canary bycatch limit of 4.7 mt
3. Limited entry non-whiting trawl
  - a. Adjust the RCA boundary north of 40°10' N. lat. (Table 2)
  - b. Adjust cumulative limits coastwide (Table 3)
4. Open access sablefish DTL north of 36° N. lat.
  - a. Adjust the bimonthly limit from 2,400 lbs per two months to 2,200 lbs per two months.

Appendix A.

Table 1. 2007 projected impacts for overfished species, based on the 2007 bycatch modeling approach and OY.

U.S. whiting OY (mt)	Commercial OY (mt)	Commercial Sector	Allocation (mt)	Projected catch (mt)				
				Canary	Darkblotched	POP	Widow	
242,591	208,091  (242,591 mt minus 2,000 mt for research and other fishery catch, minus 32,500 mt for the tribal allocation)	Mothership	49,942	2.3	4.4	1.0	86	
		Catcher	70,751	0.2	5.6	1.5	86	
		Processor	87,398	1.4	2.4	0.3	45.6	
		Shoreside						
		Total	208,091	3.9	12.4	2.9	217.6	

**2008 Projected mortality impacts (mt) of overfished groundfish species under inseason proposals and recommended bycatch limits for the LE non-tribal whiting fishery.**

3/14/08

Fishery	Bocaccio b/	Canary	Cowcod	Dkbl	POP	Widow	Yelloweye
<b>Limited Entry Trawl- Non-whiting</b>	<b>11.7</b>	<b>9.1</b>	<b>0.0</b>	<b>258.6</b>	<b>81.5</b>	<b>7.1</b>	<b>0.6</b>
<b>Limited Entry Trawl- Whiting</b>							
At-sea whiting motherships a/		4.7		40.0	1.9	275-295.6	0.0
At-sea whiting cat-proc a/					0.0		0.0
Shoreside whiting a/					0.0		0.0
Tribal whiting		0.7		0.0	0.6	6.1	0.0
<b>Tribal</b>							
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
<b>Limited Entry Fixed Gear</b>		1.1					2.2
Sablefish	13.4		0.0	0.6	0.3	0.9	
Non-Sablefish			0.1	0.4		0.5	
<b>Open Access: Directed Groundfish</b>		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	2.6		0.0	0.0	0.5	1.6
Nearshore (South of 40°10' N. lat.)	0.1			0.0	0.0		
Other	10.6			0.0	0.0	0.0	0.1
<b>Open Access: Incidental Groundfish</b>							
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)							
<b>Recreational Groundfish e/</b>							
WA		5.7					6.2
OR						1.4	
CA	<b>66.3</b>	<b>9.0</b>	<b>0.3</b>			<b>8.0</b>	<b>2.1</b>
<b>EFPs</b>	<b>11.0</b>	<b>0.1</b>	<b>0.2</b>	<b>1.0</b>		<b>3.4</b>	<b>0.1</b>
<b>Research: Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs. f/</b>							
	2.0	5.5	0.2	2.0	2.0	1.1	3.0
<b>TOTAL</b>	116.4	44.0	0.9	302.9	90.1	<b>342.5-363.5</b>	18.9
<b>2008 OY</b>	218	44.0	4.0	330	150	368	20
<b>Difference</b>	101.6	0.0	3.1	27.1	59.9	<b>2.6 - 23.6</b>	1.1
<b>Percent of OY</b>	53.4%	100.0%	22.5%	91.8%	60.1%	-	94.3%
Key	= either not applicable; trace amount (<0.01 mt); or not reported in available data						

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 for WA and OR. However, harvest guidelines for 2008 are as follows: canary in WA and OR combined = 8.2 mt; yelloweye in WA and OR combined = 6.8 mt. For California, harvest guidelines are represented.

f/ Research projections updated November 2007.



**2008 Projected mortality impacts (mt) of overfished groundfish species under inseason proposals and California Recreational Harvest Guidelines.**

3/14/08

Fishery	Bocaccio b/	Canary	Cowcod	Dkbl	POP	Widow	Yelloweye
<b>Limited Entry Trawl- Non-whiting</b>	11.7	9.1	0.0	258.9	81.5	7.1	0.6
<b>Limited Entry Trawl- Whiting</b>							
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
<b>Tribal</b>							
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
<b>Limited Entry Fixed Gear</b>		1.1					2.2
Sablefish	13.4		0.0	0.6	0.3	0.9	
Non-Sablefish			0.1	0.4		0.5	
<b>Open Access: Directed Groundfish</b>		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	2.6		0.0	0.0	0.5	1.6
Nearshore (South of 40°10' N. lat.)	0.1			0.0	0.0		
Other	10.6			0.0	0.0	0.0	0.1
<b>Open Access: Incidental Groundfish</b>							
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)							
<b>Recreational Groundfish e/</b>							
WA		5.7					6.2
OR						1.4	
CA	66.3	9.0	0.3			8.0	2.1
<b>EFPs</b>	11.0	0.1	0.2	1.0		3.4	0.1
<b>Research: Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs. f/</b>							
	2.0	5.5	0.2	2.0	2.0	1.1	3.0
<b>TOTAL</b>	116.4	44.0	0.9	288.2	90.1	344.4	18.9
<b>2008 OY</b>	218	44.0	4.0	330	150	368	20
<b>Difference</b>	101.6	0.0	3.1	41.9	59.9	23.6	1.1
<b>Percent of OY</b>	53.4%	100.0%	22.5%	87.3%	60.1%	93.6%	94.3%
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 for WA and OR. However, harvest guidelines for 2008 are as follows: canary in WA and OR combined = 8.2 mt; yelloweye in WA and OR combined = 6.8 mt. For California, harvest guidelines are represented.

f/ Research projections updated November 2007.

**2008 Projected mortality impacts (mt) of overfished groundfish species. Updated at the March Council meeting with the latest bycatch rates for the LE non-whiting fishery, Limited Entry Fixed Gear fishery, and Open Access fishery, status quo impacts for California Recreational prior to inseason action.**

3/14/08

Fishery	Bocaccio b/	Canary	Cowcod	Dkbl	POP	Widow	Yelloweye
<b>Limited Entry Trawl- Non-whiting</b>	<b>11.5</b>	<b>16.3</b>	<b>1.4</b>	<b>209.1</b>	<b>80.9</b>	<b>6.6</b>	<b>0.5</b>
<b>Limited Entry Trawl- Whiting</b>							
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/			0.0		0.0		
Tribal whiting		0.7		0.0	0.6	6.1	0.0
<b>Tribal</b>							
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
<b>Limited Entry Fixed Gear</b>		<b>1.1</b>					<b>2.2</b>
Sablefish	13.4		0.0	<b>0.6</b>	<b>0.3</b>	<b>0.9</b>	
Non-Sablefish			0.1	<b>0.4</b>		0.5	
<b>Open Access: Directed Groundfish</b>		<b>1.0</b>					
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	<b>2.6</b>		0.0	0.0	0.5	<b>1.6</b>
Nearshore (South of 40°10' N. lat.)	<b>0.1</b>			0.0	0.0		
Other	10.6			0.0	0.0		
<b>Open Access: Incidental Groundfish</b>							
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)							
<b>Recreational Groundfish e/</b>							
WA		5.7					6.2
OR						1.4	
CA	<b>49.5</b>	<b>11.5</b>	<b>0.1</b>			<b>6.1</b>	<b>8.5</b>
<b>EFPs</b>	<b>11.0</b>	<b>0.1</b>	<b>0.2</b>	<b>1.0</b>		<b>3.4</b>	<b>0.1</b>
<b>Research: Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs. f/</b>							
	2.0	5.5	0.2	2.0	2.0	1.1	3.0
<b>TOTAL</b>	<b>99.4</b>	<b>53.7</b>	<b>2.1</b>	<b>238.4</b>	<b>89.5</b>	<b>342.0</b>	<b>25.2</b>
<b>2008 OY</b>	<b>218</b>	<b>44.0</b>	<b>4.0</b>	<b>330</b>	<b>150</b>	<b>368</b>	<b>20</b>
<b>Difference</b>	<b>118.6</b>	<b>-9.7</b>	<b>1.9</b>	<b>91.7</b>	<b>60.5</b>	<b>26.0</b>	<b>-5.2</b>
<b>Percent of OY</b>	<b>45.6%</b>	<b>122.0%</b>	<b>52.5%</b>	<b>72.2%</b>	<b>59.7%</b>	<b>92.9%</b>	<b>125.8%</b>
Key		= either not applicable; trace amount (<0.01 mt); or not reported in available					

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e/ Values in scorecard represent projected impacts for WA, OR, and CA under status quo management measures.

f/ Research projections updated November 2007.