

GROUND FISH MANAGEMENT TEAM REPORT ON INSEASON ADJUSTMENTS  
PART II FOR 2011

The Groundfish Management Team (GMT) discussed Council and National Marine Fisheries Service (NMFS) guidance under Agenda Item H.3 Consideration of Inseason Adjustments Part 1 and offers the following thoughts and considerations.

**Delay in the 2011-2012 Harvest Specifications and Amendment 21**

The Amendment 21 order of operations specifies that the annual catch limit (ACL) or annual catch target (ACT) is reduced by the set asides (tribal, incidental open access, research, EFPs) resulting in the fishery harvest guideline that is further divided into trawl and non-trawl allocations. The trawl and non-trawl allocations are implemented through Amendment 21 (trawl dominant species) as well as through the biennial harvest specifications and management measures process (non-trawl dominant overfished species). The off the top deductions and resulting trawl and non-trawl allocations are to remain static for the duration of the biennium.

During the biennial process, the Council specified off the top deductions based on the best available information at the time. As mentioned in the GMT report under Agenda Item H.3, the International Pacific Halibut Commission (IPHC) is considering alternate configurations for the halibut stock assessment survey, which could change our estimates of yelloweye impacts. Changes to this survey design are anticipated to be approved at the IPHC Annual Meeting in January 2011. Further, the Washington Department of Fish and Wildlife (WDFW) and Oregon Department of Fish and Wildlife (ODFW) have expressed the desire to continue the enhanced yelloweye rockfish survey, depending on the amount of yelloweye rockfish available. **Given the unique situation with the biennial specifications delay, the Council may wish to have flexibility to adjust the off the top deductions in April 2011.** As previously noted in past GMT statements, the Amendment 21 order of operations and static allocations is problematic. Inevitably, given the difficulty in forecasting set aside activities in the tribal, incidental open access, research, and EFPs activities, the off the top deductions will be mis-specified. Solutions that result in the least amount of disruption to the formal allocations will be needed. We recommend that this issue be scoped during the Amendment 6 vs. Amendment 21 trailing amendment for trawl rationalization.

The Council recommended that NMFS implement two-year trawl and non-trawl allocations for bocaccio, canary, cowcod, petrale, and yelloweye during the 2011-2012 harvest specifications and management measures process. **Due to the delay in implementing the 2011-2012 harvest specifications and management measures and the uncertainty surrounding the 2011 overfished species harvest specifications, the Council may wish to retain flexibility for adjusting the two-year trawl and non-trawl allocations for these species in 2011, as needed.**

## **Model Uncertainty**

Prompted by Council discussion under Agenda Item H.3 Consideration of Inseason Adjustments – Part 1, the GMT further discussed the inherent uncertainty in modeling to attain target species optimal yields (OYs), targets, or allocations. In general, when individual modelers develop point estimates of impacts, they do so considering the quality of the data that goes into the model, the performance of the model, the ability to predict the performance of the fishery and the likelihood of achieving a year-round fishery. Those point estimates are then presented to the Council with a description of the considerations that went into developing them, particularly any pertinent information that informs estimation uncertainty. The discussion of uncertainty is meant to help guide the Council to a policy decision based on their understanding of the risk of exceeding a given target.

Under the new National Standard 1 (NS1) guidelines, we are required to account for uncertainty in developing accountability measures (AM). The NS1 guidelines list two types of uncertainty to account for in developing AMs: 1) uncertainty in the ability of managers to constrain catch so the ACL is not exceeded, and 2) uncertainty in quantifying the true catch amounts (*i.e.*, estimation errors). For the 2013-2014 biennial management cycle, the GMT will be examining all of our models with a particular focus on describing and documenting the estimation error (e.g. variance in point estimates) for each to help account for management uncertainty.

## **Research – Yelloweye catch in the IPHC Survey**

Historically, the Council has taken a risk averse approach to research set asides. The IPHC survey typically has the highest research impacts and is usually completed in August. If IPHC research catch exceeds the set aside, the Council is left with few options for reducing catch at the September meeting. Under Agenda Item H.3, the Council's preliminary guidance on yelloweye rockfish deductions from the OY for 2011 includes a 1.3 mt set aside for research (1.1 mt for IPHC plus 0.2 mt for other research), reduced from the 3.3 mt estimated during the harvest specifications and management measures process.

Table 1 reproduces an analysis of yelloweye catch in the Area 2A IPHC survey that we presented to the Council in March.<sup>1</sup> We did not update this data with the 2010 catch of 0.3 mt. This number would obviously bring down every number but the max. We offer this information again as a reminder that the IPHC research catch is variable and has reached as high as 1.1 mt.

---

<sup>1</sup> PFMC March 2010 Briefing Book, [Agenda Item E.5.b, Supplemental GMT Report](#).

Table 1. Yelloweye rockfish catch statistics from IPHC standard grid stations, 2002-2009, with projected impacts given 8 skates in 2010 and 3-year average weight (2007-2009). Reproduced from PFMC March 2010 Briefing Book, [Agenda Item E.5.b, Supplemental GMT Report](#).

Statistic	Predicted Number YE	Predicted (mt)
Median	218	0.8
75th percentile	228	0.8
90th percentile	258	0.9
Max	316	1.1
Average	157	0.7

**Council Guidance Regarding 2011 Recreational Fisheries**

The Council requested that the GMT analyze the implementation of the following recreational regulations for 2011. Some of these actions appear to be routine inseason management measures as defined in the Groundfish Fishery Management Plan and groundfish regulations, while others may require an impact analysis and inclusion in a rule making. Based on preliminary guidance from the Northwest Region, the GMT attempted to highlight the difference between those actions in the discussion below.

The GMT believes implementing these regulations by January 1, 2011 would result in a seamless transition to the management measures contained in the 2011-2012 final rule, which is anticipated for publication in April 2011. This action would allow for somewhat consistent state and federal regulations to be in place on January 1<sup>st</sup>; however, in some instances the states may still opt to have regulations that are more restrictive than the federal regulations (e.g., more restrictive bag limit or sub-bag limit). The intent of this action would be to avoid the complication of inseason changes after the April emergency and final rules are implemented. The public and enforcement have already been notified and are anticipating these changes on January 1, 2011. The delay in implementing these regulations will result in public and enforcement confusion and could be in addition to any inseason changes that may be necessary later in the season (for example, increased management measures due to higher than anticipated catches of overfished species). Frequent changes in the recreational regulations cause angler and enforcement confusion and result in additional cost and work load, necessary to inform the public of the changes.

*Washington Recreational Fishery*

Washington recreational management measures that were recommended by the Council for the start of 2011 were developed to maintain low levels of incidental rockfish catch, primarily yelloweye rockfish, while maintaining fishing opportunities for halibut and lingcod. These management measures rely on depth restrictions to keep the fishery in shallower waters to limit encounters with yelloweye rockfish and to increase the survivability of released rockfish. Yelloweye encounters are higher in the north than the south coast areas and as a result depth

restrictions are progressively more restrictive as you move from south to north. In our preliminary review of the FMP and groundfish regulations, it appears that changes to the recreational rockfish conservation areas (e.g., depth restrictions) are routine inseason management measures.

Washington is requesting the following management measures be considered for 2011:

### **Coastwide Bag Limits**

In addition to depth restrictions, Washington will implement a reduced aggregate bottomfish bag limit from 15 to 12 and a separate sub limit for cabezon of two per angler per day. Analysis shows that less than 1% of anglers retain more than 12 bottomfish. A sub limit of 2 cabezon would provide regulations that are consistent with the adjacent Puget Sound management area and would limit harvests for a species with uncertain stock status. In our preliminary review of the FMP and groundfish regulations, it appears that bag limit adjustments are routine inseason management measures. It is unclear whether the cabezon sub-bag limit would be considered routine, but it may be possible for the state to implement a more restrictive (i.e., sub-bag limit) than the federal regulations. The GMT notes that the sub-bag limit for cabezon may be necessary to address the uncertainty in the cabezon stock status in Washington and as such maybe a conservation concern.

Total projected yelloweye impacts for 2011 under these management measures are estimated to be 2.5 mt. In both 2009 and 2010 only three percent of the total season yelloweye harvest was taken prior to May 1. The majority of the yelloweye impacts occur in May and June; 78% and 71% respectively for 2009 and 2010. Projected yelloweye impacts through June 2011 are 1.4 mt.

### **North Coast (Marine Catch Areas 3 and 4)**

Retention of bottomfish prohibited seaward of 20 fm from June 1 through September 30 except on days that halibut fishing is open (6 and 7 days in 2009 and 2010, respectively). It is unlawful to fish for, retain, or possess bottomfish or halibut in the yelloweye rockfish conservation areas (YRCA).

### **South Coast (Marine Catch Area 2)**

Retention of bottomfish, except rockfish, prohibited seaward of 30 fm from March 15 through June 15, except sablefish and Pacific cod retention is allowed May 1 through June 15; no retention of bottomfish, except lingcod, during the primary halibut season; no retention of lingcod south of 46° 58' N. lat. and seaward of 30 fm on Fridays and Saturdays from July 1 through August 31; and cannot fish for, retain, or possess bottomfish or halibut in South Coast YRCA and Westport Offshore YRCA.

### **Columbia Area (Marine Catch Area 1)**

Retention of bottomfish, except sablefish and pacific cod, prohibited with halibut on board May 1 through September 30.

*Oregon Recreational Fishery*

The Oregon recreational fishery is structured to allow fishing opportunities throughout the calendar year, while not exceeding the bycatch caps of overfished species. Table 2 and Table 3 show the projected Oregon recreational bottomfish fishery impacts for 2011 during the January 1 through May 1 and January 1 through July 1, under the season structure proposed in the 2011-2012 SPEX.

Table 2. Non-overfished species impacts accruing from January 1<sup>st</sup> to May 1<sup>st</sup> and January 1<sup>st</sup> to July 1<sup>st</sup> in the Oregon recreational bottomfish fishery.

Species	Projected Impacts (mt)	
	Thru May 1	Thru July 1
Black Rockfish	62.1	156.8
Other Nearshore Rockfish	1.8	5.9
Cabezon	2.3	5.2
Greenlings	0.7	1.9

Table 3. Overfished species impacts accruing from January 1<sup>st</sup> to May 1<sup>st</sup> and January 1<sup>st</sup> to July 1<sup>st</sup> in the Oregon recreational bottomfish fishery.

Species	HG (mt)	Thru May 1		Thru July 1	
		Projected Impacts (mt)	2011 Percent HG	Projected Impacts (mt)	2011 Percent HG
Yelloweye Rockfish	2.3	0.4	17%	1.4	60%
Bocaccio	N/A	N/A	N/A	N/A	N/A
Cowcod	N/A	N/A	N/A	N/A	N/A
Canary Rockfish	16	0.8	5%	1.4	9%
Widow Rockfish	N/A	N/A	N/A	N/A	N/A

Over the last several years, the concern over yelloweye rockfish impacts has been the driving factor for management measures. The bottomfish fishery is open to all depths during January through April and October through December. To limit yelloweye rockfish impacts, and stay within allocations, the fishery is restricted to inside of 40 fm during the summer months, May through September. These months tend to have better weather and greater effort, therefore increased catch of target species and associated impacts to overfished species. The time period of January through April, though open to all-depth, has low yelloweye rockfish impacts, approximately 13% of the annual impacts over the last three years. The majority of yelloweye impacts occur during the months of the greatest effort, July and August. Based on the recent history of the fishery and expected other fishing opportunities, it is anticipated that this trend will continue in 2011, under both 2010 seasonal depth restriction and bag limit regulations and the regulations proposed for 2011 under SPEX. Therefore, no changes to the seasonal depth

regulations appear to be necessary to stay with in the Oregon recreational yelloweye allocation, given as Council guidance under Inseason Part I at this Council meeting.

One change from the 2010 regulations that NMFS may want to consider implementing this non-routine management measure for 2011, prior to the anticipated final adoption of the 2011-2012 SPEX regulations, is the addition of the cabezon seasonal sub-bag limit in the Oregon recreational bottomfish fishery. As mentioned above, it is unclear whether the cabezon sub-bag limit would be considered routine, but it may be possible for the state to implement a more restrictive regulation (i.e., sub-bag limit) than the federal regulations. The GMT notes that the sub-bag limit for cabezon may be necessary to address the new cabezon ACL and lower recreational target for 2011.

Under the 2011-2012 SPEX, there is a 50 mt ACL for cabezon in Oregon. Previously cabezon had been managed under a state specified landing cap. In an effort to reduce total impacts to cabezon from the Oregon recreational fishery, a seasonal sub-bag limit for cabezon (“of the marine bag limit, no more than one fish may be cabezon”) was proposed in the 2011-2012 SPEX. During the normal process, the state of Oregon would adopt concurrent regulations into state rules following the publication of the federal regulations. Since this proposed change is to be in effect prior to the anticipated finalization of the 2011-2012 SPEX regulations, from April 1 through September 30, coinciding with the seasonal depth restrictions, and since the state can set more conservative regulations than the federal regulations, the state of Oregon has put this regulation into the state rules, effective January 1, 2011. This should provide a seamless transition of the fishery regulations upon final adoption of the SPEX for fisheries managers, enforcement personnel and the angling public. However if NMFS does not implement this management measure there will be a discrepancy between rolled over 2010 federal regulations and the new more restrictive 2011 state regulations.

#### *California Recreational Fishery*

The CDFG is proposing adoption of the following management measures effective January 1, 2011, consistent with the Council’s final preferred alternative and the proposed rule to implement the 2011-2012 harvest specifications and management measures. The season and depth restrictions adopted by the Council in June were approved by the California Fish and Game Commission and will be reflected in the California regulation booklet. The season and depth restrictions prior to May 1<sup>st</sup> as approved by the Council in June (other than those for California scorpionfish and the Cowcod Conservation Area addressed below) do not deviate from the 2010 status quo regulations. If NMFS selects a yelloweye rockfish ACL that result in a California recreational harvest guideline that is projected to be exceeded during the course of the season, inseason action can be taken to prevent an overage. The projected yelloweye rockfish impacts for the 2011 season with the season and depth restrictions adopted in June and the regulations mentioned below are 3.1 mt. Yelloweye rockfish are exceedingly uncommon in shore modes and the Southern Management Area. Since the Southern Management Area is the only Management Area open to boat based fishing prior to May 1<sup>st</sup>, no yelloweye rockfish is projected to accrue before May 1<sup>st</sup>. The projected impacts for all other species from January 1<sup>st</sup> to May 1<sup>st</sup> with 2011 regulations in place are provided in Table 4 and Table 5 below. Only 0.9 mt of yelloweye rockfish is projected to accrue by July 1<sup>st</sup> in the event that action cannot be taken to implement the 2011 regulatory specifications before the June Council meeting. The

January 1<sup>st</sup> to July 1st projected impacts for all other species with the 2011 regulations in place are provided in Table 6 and Table 7 below are the management measures that would need to be effective January 1<sup>st</sup> to ensure consistent regulations with the remainder of the year once NMFS is able to implement the full biennial Specifications package.

- 1. Eliminate the lingcod spawning closure in the California recreational fishery for all fishing modes, making lingcod seasons consistent with those for rockfish in each management area.** This proposal was included in the 2011-2012 harvest specifications and management measures because the latest stock assessment indicated that the southern lingcod stock is rebuilt. The season restriction changes will reduce regulatory complexity, enhance fishing opportunity during the affected months and allow the fishery to come closer to achieving the ACL/OY for this target stock. This regulation change would be necessary to prevent inconsistency in the retention regulation for shore fishing in January through the end of March for shore fishermen state wide and March for boat based anglers in the Southern Management Area. The preliminary review of the FMP and groundfish regulations, this does not appear to be a routine inseason management measure. Further, it is unclear whether this action would require an impact analysis and inclusion in a rule making.
- 2. Decrease the lingcod size limit to 22 inches with a 14 inch fillet length restriction, statewide.** This proposal was included in the 2011-2012 harvest specifications and management measures because the latest stock assessment indicated that the southern lingcod stock is rebuilt. This regulation would enhance fishing opportunity during the open months of the season and allow the fishery to come closer to achieving the ACL/OY for this target stock. At present the size limit is 24 inches with a 16 inch fillet length restriction, which would differ from the length and fillet length restrictions adopted by the Council for the remainder of the year unless the regulation the proposed change is taken to address prevent this discrepancy. While, most changes to size limits are considered routine management measures, it is unclear whether this action would require an impact analysis and inclusion in a rule making.
- 3. Change the California scorpionfish (sculpin) depth restriction in the Southern Management Area during the closed season from rockfish from 40 fm to 60 fm.** This action will reduce regulatory complexity and increase fishing grounds and is not projected to exceed harvest limits for California scorpionfish or appreciably increasing impacts on overfished species. At present, the California scorpionfish depth restriction is 40 fm in January and February, which would result in an inconsistency with the adopted 2011 depth restriction of 60 fm in the remainder of the year. While, most changes to depth restrictions are considered routine management measures, it is unclear whether this action would require an impact analysis and inclusion in a rule making.
- 4. Increase the cabezon bag limit to 3 fish statewide.** The most recent stock assessment has indicated that the abundance of cabezon in California is greater than previously thought. The increased bag limit would enhance fishing opportunity during the open months of the season and allow the fishery to come closer to achieving the ACL/OY for this target stock. The current bag limit is currently two fish per person in 2010, which would be inconsistent with the three fish bag limit adopted for 2011 in the shore mode in January and February state

wide and boat based modes in the Southern Management Area in March and April compared to the remainder of the year if the 2010 regulation is rolled over until May 1<sup>st</sup>. A preliminary review of the FMP and groundfish regulations indicates that most changes to bag limits are considered routine management measures. This bag limit adjustment was also previously analyzed in the 2009-2010 EIS therefore the team believes this would be a routine inseason management measure.

- 5. Increase the recreational depth restriction in the Cowcod Conservation Area from 20fm to 30.** Analysis provided in the 2011-2012 biennial regulatory specifications indicate that the depth restriction in the CCA could be increased to expand fishing grounds without appreciable increase in interactions with Cowcod, which are very uncommon in depths less than 40 fm. Failure to implement this management measure January 1<sup>st</sup> would create an inconsistency in the CCA depth restriction in March and April, which would have a depth restriction of 20 fm as compared with the remainder of the season once the regulatory package is implemented, when it would be 30 fm. While, most changes to depth restrictions are considered routine management measures, it is unclear whether this action would require an impact analysis and inclusion in a rule making.
- 6. Modify the list of groundfish species allowed to be taken recreationally in the Cowcod Conservation Area to include shelf rockfish.** This management measure will reduce wastage of shelf rockfish due to discard mortality by converting discards to retained catch. The current 2010 restrictions prohibit retention or possession of shelf rockfish within the CCA and if continued in March and April 2011 when the CCA would be open to boat based groundfish fishing, would result in inconsistency with the remaining months of the year. The preliminary review of the FMP and groundfish regulations, this does not appear to be a routine inseason management measure. Further, it is unclear whether this action would require an impact analysis and inclusion in a rule making.
- 7. Modify cabezon and kelp greenling gear restrictions to be consistent with rockfish regulations (1 rod with no more than 2 hooks).** This management measure is intended to increase consistency in the gear used to target the Rockfish, Cabezon and Greenling complex and lingcod, which are co-occurring species. There are no gear restrictions on Cabezon and kelp greenling in 2010 and if these regulations continue they would result in an inconsistency with the regulations from January to April in the shore fishery and in the boat based fishery in the Southern Management Area in March and April compared to the remainder of the year unless it is implemented on January 1st. The preliminary review of the FMP and groundfish regulations, this does not appear to be a routine inseason management measure. Further, it is unclear whether this action would require an impact analysis and inclusion in a rule making.



Table 4. Non-overfished species impacts accruing from January 1<sup>st</sup> to May 1<sup>st</sup> in the California recreational fishery with specified regulation changes in place.

<b>Species</b>	<b>Projected Impacts</b>
Black Rockfish	0.0
Blue Rockfish	2.3
Cabazon	0.7
California Scorpionfish	13.0
California Sheephead	4.5
Greenlings	0.0
Lingcod	1.3
Minor Nearshore North	7.8
Minor Nearshore South	13.5

Table 5. Overfished species impacts accruing from January 1<sup>st</sup> to May 1<sup>st</sup> in the California recreational fishery with specified regulation changes in place.

<b>Species</b>	<b>HG (mt)</b>	<b>Projected Impacts (mt)</b>	<b>2011 Percent HG</b>
Yelloweye Rockfish	2.0	0.0	0%
Bocaccio	66.3	15.5	23%
Cowcod	0.3	0.05	16%
Canary Rockfish	22.9	0.05	0%
Widow Rockfish	NA	1.2	NA

Table 6. Overfished species impacts accruing from January 1<sup>st</sup> to July 1<sup>st</sup> in the California recreational fishery with specified regulation changes in place.

<b>Species</b>	<b>HG (mt)</b>	<b>Projected Impacts (mt)</b>	<b>2011 Percent HG</b>
Yelloweye Rockfish	2.1	0.9	43%
Bocaccio	66.3	24.1	36%
Cowcod	0.3	0.06	21%
Canary Rockfish	22.9	2.10	9%
Widow Rockfish	NA	2.2	NA

Table 7. Non-overfished species impacts accruing from January 1<sup>st</sup> to July 1<sup>st</sup> in the California recreational fishery with specified regulation changes in place.

<b>Species</b>	<b>Projected Impacts</b>
Black Rockfish	45.1
Blue Rockfish	38.2
Cabazon	7.1
California Scorpionfish	20.9
California Sheephead	9.1
Greenlings	3.0
Lingcod	51.1
Minor Nearshore North	2.4
Minor Nearshore South	79.7

## **Commercial Fisheries**

### *Trawl Allocation of Yelloweye Rockfish*

The GMT attempted to examine the impacts between a trawl allocation of 0.3 mt (Council guidance under Agenda Item H.3) and 0.6 mt (2011-2012 allocation) of yelloweye in terms of expected quota pound (QP) allocations for 2011.

Table 8 makes this basic comparison based on estimated quota share (QS) allocations received from Council staff. Although we did not attempt to find the average weight of a yelloweye

caught in the trawl fishery, we did have the average weight of a yelloweye caught in the 2010 IPHC survey readily available. On stations off Oregon, that average weight was 2.6 kg (5.7 lbs) and off Washington it was 3.6 kg (7.9 lbs). If these weights are representative of what may be caught in the trawl fishery, then permits receiving QP of 5 lbs or less will not receive enough to cover the catch of a single yelloweye. As shown in

Table 8, the number of permits receiving less than 5 lbs of yelloweye QP increases by 38.9 percent under the 0.3 mt allocation compared to the 0.6 mt allocation.

Table 8. Number (n) of permits within various QP categories (rows) under yelloweye trawl allocations of 0.3 mt and 0.6 mt.

<b>QP</b>	<b>0.6 mt</b>	<b>0.3 mt</b>	<b>+/-</b>
<i>70 lbs &gt; n &gt; 50 lbs</i>	3	0	-3
<i>50 lbs &gt; n &gt; 30 lbs</i>	4	2	-2
<i>30 lbs &gt; n &gt; 20 lbs</i>	6	2	-4
<i>20 lbs &gt; n &gt; 10 lbs</i>	28	9	-19
<i>10 lbs &gt; n &gt; 5 lbs</i>	33	28	-5
<i>5 lbs &gt; n &gt; 0 lbs</i>	85	118	33
<i>0 lbs</i>	8	8	0
<i>Total</i>	167	167	

As mentioned at the beginning of this report, due to the delay in implementing the 2011-2012 harvest specifications and management measures and the uncertainty surrounding the 2011 overfished species harvest specifications, the Council may wish to retain flexibility for adjusting the trawl and non-trawl allocations for these species in 2011, as needed.

*Limited Entry Rationalized Trawl Fishery*

Under Agenda Item H.3, the Council asked the GMT to provide information on the amount of catch that would accrue in the fishery during the first few months of the year. Table 9 shows the sum of landed catch (mt) for major target species and complexes of the LE non-whiting, bottom trawl fishery, from 2007 through 2009, by year. It shows the landings from January to June, annual landings, and the percent that January to June landings are of annual landings.

Table 9 Landed catch (mt) for target species and complexes in the LE non-whiting bottom trawl fishery from 2007 through 2009, with landings and percent of total landings January to June.

<b>Year</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Annual	21,129	25,174	27,931
Jan-June	10,528	12,988	16,107
% Annual	50%	52%	58%

Contingency in case of TIQ Delay

Based on guidance from the Northwest Region, the rationalized trawl fishery is anticipated to begin in January 2011, with quota pounds issued via an emergency rule. It is also the GMT's understanding that, unless NMFS takes action to supersede, the 2010 trawl trip limit tables will rollover and still be in regulations for 2011. **As a contingency plan, the Council should adopt the following trip limits and RCA structure for 2011 if trawl rationalization is delayed beyond January 1, 2011 (Table 10).** This philosophy is consistent with the approach taken in the development of the 2011-2012 harvest specifications and management measures process. The limits have been modified, given the rollover of the 2010 harvest specifications, which in some instances are lower than the 2011 ACLs.

Table 10. Trip limit table for 2011 based on the revised contingency plan for the trawl fishery. This alternative relates to Alternative 2, which was analyzed in the DEIS.

2-month period	RCA lines (fm)		2-month cumulative-poundage limits							
	shallow	deep	sable-fish	long-spine	short-spine	Dover sole	petrale sole	arrow-tooth	other flatfish	slope rockfish
<b>N. of 40°10' N lat.</b>										
Large/small footrope limits										
1	75	250	<b>14,000</b>	20,000	18,000	110,000	<b>6,000</b>	150,000	110,000	6,000
2	75	200	<b>14,000</b>	20,000	18,000	110,000	<b>6,000</b>	150,000	110,000	6,000
3	75	200	<b>13,000</b>	20,000	18,000	110,000	<b>5,000</b>	150,000	110,000	6,000
4	100	200	<b>13,000</b>	20,000	18,000	110,000	<b>5,000</b>	150,000	110,000	6,000
5	75	200	<b>13,000</b>	20,000	18,000	110,000	<b>5,000</b>	150,000	110,000	6,000
6	75	250	<b>14,000</b>	20,000	18,000	110,000	<b>6,000</b>	150,000	110,000	6,000
Selective gear limits										
1	75	250	<b>7,000</b>	5,000	5,000	50,000	<b>3,500</b>	50,000	40,000	
2	75	200	<b>7,000</b>	5,000	5,000	50,000	<b>3,500</b>	50,000	40,000	
3	75	200	<b>8,000</b>	5,000	5,000	50,000	<b>3,500</b>	50,000	40,000	
4	100	200	<b>8,000</b>	5,000	5,000	50,000	<b>3,500</b>	50,000	40,000	
5	75	200	<b>7,000</b>	5,000	5,000	50,000	<b>3,500</b>	50,000	40,000	
6	75	250	<b>7,000</b>	5,000	5,000	50,000	<b>3,500</b>	50,000	40,000	
<b>38° - 40°10' N lat.</b>										
1	100	150	<b>12,000</b>	20,000	18,000	110,000	<b>5,000</b>	10,000	110,000	15,000
2	100	150	<b>12,000</b>	20,000	18,000	110,000	<b>5,000</b>	10,000	110,000	15,000
3	100	150	<b>12,000</b>	20,000	18,000	110,000	<b>5,000</b>	10,000	110,000	15,000
4	100	150	<b>12,000</b>	20,000	18,000	110,000	<b>5,000</b>	10,000	110,000	15,000
5	100	150	<b>12,000</b>	20,000	18,000	110,000	<b>5,000</b>	10,000	110,000	15,000
6	100	150	<b>12,000</b>	20,000	18,000	110,000	<b>5,000</b>	10,000	110,000	15,000
<b>S. of 38° N lat.</b>										
1	100	150	<b>12,000</b>	20,000	18,000	110,000	<b>5,000</b>	10,000	110,000	55,000
2	100	150	<b>12,000</b>	20,000	18,000	110,000	<b>5,000</b>	10,000	110,000	55,000
3	100	150	<b>12,000</b>	20,000	18,000	110,000	<b>5,000</b>	10,000	110,000	55,000
4	100	150	<b>12,000</b>	20,000	18,000	110,000	<b>5,000</b>	10,000	110,000	55,000
5	100	150	<b>12,000</b>	20,000	18,000	110,000	<b>5,000</b>	10,000	110,000	55,000
6	100	150	<b>12,000</b>	20,000	18,000	110,000	<b>5,000</b>	10,000	110,000	55,000

The projected impacts of the above trip limits and RCA structure are shown in Table 11 below. These management measures are the same as those in Alternative 2 in the SPEX DEIS.

Table 11. Projected impacts for Alternative 2 (intermediate-ACL scenario) for 2011.

<b>Major Target Species</b>	<b>Model Target</b>	<b>Model Projection</b>	<b>Proj. - Target</b>	<b>Proj. % of Target</b>
Sablefish N of 36° N. lat.	2,325	2,324	-1	100.0%
Longspine N. of 34 27' N. lat.	2,000	1,337	-663	66.9%
Shortspine N. of 34 27' N. lat.	1,450	1,418	-32	97.8%
Dover sole	16,306	12,492	-3,814	76.6%
Arrowtooth flounder	14,166	4,607	-9,559	32.5%
Petrable sole	643	632	-11	98.3%
English sole	18,659	439	-18,220	2.4%
Other flatfish	4,886	840	-4,046	17.2%
Minor Slope Rockfish North	877	170	-707	19.4%
Minor Slope Rockfish South	394	234	-160	59.4%
<b>Rebuilding Species</b>				
Canary rockfish	19.3	9.7	-10	50.2%
Pacific ocean Perch	63.3	41.8	-21	66.0%
Darkblotched rockfish	241.5	108.8	-133	45.1%
Widow rockfish	148.1	8.7	-139	5.9%
Yelloweye rockfish	0.6	0.2	0	31.8%
Bocaccio	11.3	5.5	-6	48.3%
Cowcod	1.9	0.3	-2	14.1%

Considerations for Initial Issuance of Quota Pounds (TIQ in January 2011)

When quota pounds are issued for 2011, the following management measures are also necessary (1) RCA boundaries for the rationalized trawl fishery and (2) incidental landing allowances for non-IFQ species for 2011. It is unclear at this time what would happen to the rolled over 2010 trip limit tables (based on a non-TIQ fishery) once the quota pounds are issued by NMFS. If the rolled over 2010 trip limit tables are not replaced and are just removed, then no RCA would be defined and landings of species without quota pounds would be prohibited. Trip limits for non – IFQ species were analyzed in the EIS (Section 2.4.2.1) and can easily be incorporated in to the EA to support the emergency rule to implement the non-IFQ species trip limits.

**Therefore, the GMT recommends that the Council request NMFS to implement the landing allowances for non-IFQ species and Pacific whiting coastwide, as described in Tables 1b (North) and 1b (South) in the November 3, 2010 proposed rule ([75 FR 67810](#)).**

**Table 1b (North) to Part 660, Subpart D -- 2011-2012 Limited Entry Trawl Rockfish Conservation Areas and Landing Allowances for non-IFQ Species and Pacific Whiting North of 40°10' N. Lat.**

This table describes Rockfish Conservation Areas and incidental landing allowances for vessels registered to a Federal limited entry trawl permit and using groundfish trawl or groundfish non-trawl gears to harvest individual fishing quota (IFQ) species.

Other Limits and Requirements Apply -- Read § 660.10 - § 660.399 before using this table

01012011

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
<b>Rockfish Conservation Area (RCA)<sup>6/</sup>:</b>						
1 North of 48°10' N. lat.	shore - modified <sup>7/</sup> 200 fm line <sup>6/</sup>	shore - 200 fm line <sup>6/</sup>	shore - 150 fm line <sup>6/</sup>		shore - 200 fm line <sup>6/</sup>	shore - modified <sup>7/</sup> 200 fm line <sup>6/</sup>
2 48°10' N. lat. - 45°46' N. lat.	75 fm line <sup>6/</sup> - modified <sup>7/</sup> 200 fm line <sup>6/</sup>	75 fm line <sup>6/</sup> - 200 fm line <sup>6/</sup>	75 fm line <sup>6/</sup> - 150 fm line <sup>6/</sup>	100 fm line <sup>6/</sup> - 150 fm line <sup>6/</sup>	75 fm line <sup>6/</sup> - 200 fm line <sup>6/</sup>	75 fm line <sup>6/</sup> - modified <sup>7/</sup> 200 fm line <sup>6/</sup>
3 45°46' N. lat. - 40°10' N. lat.			75 fm line <sup>6/</sup> - 200 fm line <sup>6/</sup>	100 fm line <sup>6/</sup> - 200 fm line <sup>6/</sup>		
<p>Selective flatfish trawl gear is required shoreward of the RCA; all bottom trawl gear (large footrope, selective flatfish trawl, and small footrope trawl gear) is permitted seaward of the RCA. Large footrope and small footrope trawl gears (except for selective flatfish trawl gear) are prohibited shoreward of the RCA. Midwater trawl gear is permitted only for vessels participating in the primary whiting season. <b>Vessels fishing groundfish trawl quota pounds with groundfish non-trawl gears, under gear switching provisions at § 660.140, are subject to the limited entry groundfish trawl fishery limits in this table, regardless of the type of fishing gear used.</b></p>						
<p>See § 660.60, § 660.130, and § 660.140 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.70-660.74 and §§ 660.76-660.79 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).</p>						
<p>State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.</p>						
5 <b>Minor nearshore rockfish &amp; Black rockfish</b>	300 lb/ month					
6 <b>Whiting</b>						
7 midwater trawl	Before the primary whiting season: CLOSED. -- During the primary season: mid-water trawl permitted in the RCA. See §660.131 for season and trip limit details. -- After the primary whiting season: CLOSED.					
8 large & small footrope gear	Before the primary whiting season: 20,000 lb/trip. -- During the primary season: 10,000 lb/trip. -- After the primary whiting season: 10,000 lb/trip.					
9 <b>Cabezon</b>						
10 North of 46°16' N. lat.	Unlimited					
11 46°16' N. lat. - 40°10' N. lat.	50 lb/ month					
12 <b>Shortbelly</b>	Unlimited					
13 <b>Spiny dogfish</b>	60,000 lb/ month					
14 <b>Longnose skate</b>	Unlimited					
15 <b>Other Fish<sup>5/</sup></b>	Unlimited					

**TABLE 1b (North)**

5/ "Other fish" are defined at § 660.11 and include sharks (except spiny dogfish), skates (except longnose skate), rattfish, morids, grenadiers, and kelp greenling.  
 6/ The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.71-660.74. This RCA is not defined by depth contours, and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to the RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.  
 7/ The "modified" fathom lines are modified to exclude certain petrale sole areas from the RCA.  
**To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.**

**Table 1b (South) to Part 660, Subpart D -- 2011-2012 Limited Entry Trawl Rockfish Conservation Areas and Landing Allowances for non-IFQ Species and Pacific Whiting South of 40°10' N. Lat.**

This table describes Rockfish Conservation Areas and incidental landing allowances for vessels registered to a Federal limited entry trawl permit and using groundfish trawl or groundfish non-trawl gears to harvest individual fishing quota (IFQ) species.

Other Limits and Requirements Apply -- Read § 660.10 - § 660.399 before using this table

01012011

	JAN-FEB	MAR-APR	MAY-JUN	JUL-AUG	SEP-OCT	NOV-DEC
<b>Rockfish Conservation Area (RCA)<sup>6/</sup>:</b>						
<sup>1</sup> South of 40°10' N. lat.	100 fm line <sup>6/</sup> - 150 fm line <sup>6/ 7/</sup>					
All trawl gear (large footrope, selective flatfish trawl, midwater trawl, and small footrope trawl gear) is permitted seaward of the RCA. Large footrope trawl gear and midwater trawl gear are prohibited shoreward of the RCA. <b>Vessels fishing groundfish trawl quota pounds with groundfish non-trawl gears, under gear switching provisions at § 660.140, are subject to the limited entry groundfish trawl fishery limits in this table, regardless of the type of fishing gear used.</b>						
<b>See § 660.60, § 660.130, and § 660.140 for Additional Gear, Trip Limit, and Conservation Area Requirements and Restrictions. See §§ 660.70-660.74 and §§ 660.76-660.79 for Conservation Area Descriptions and Coordinates (including RCAs, YRCA, CCAs, Farallon Islands, Cordell Banks, and EFHCAs).</b>						
State trip limits and seasons may be more restrictive than federal trip limits, particularly in waters off Oregon and California.						
<sup>2</sup> <b>Longspine thornyhead</b>						
<sup>3</sup> South of 34°27' N. lat.	24,000 lb/ 2 months					
<sup>4</sup> <b>Minor nearshore rockfish &amp; Black rockfish</b>	300 lb/ month					
<b>Whiting</b>						
midwater trawl	Before the primary whiting season: CLOSED. -- During the primary season: mid-water trawl permitted in the RCA. See §660.131 for season and trip limit details. -- After the primary whiting season: CLOSED.					
large & small footrope gear	Before the primary whiting season: 20,000 lb/trip. -- During the primary season: 10,000 lb/trip. -- After the primary whiting season: 10,000 lb/trip.					
<sup>5</sup> <b>Cabezon</b>	50 lb/ month					
<sup>6</sup> <b>Shortbelly</b>	Unlimited					
<sup>7</sup> <b>Spiny dogfish</b>	60,000 lb/ month					
<sup>8</sup> <b>Longnose skate</b>	Unlimited					
<sup>9</sup> <b>California scorpionfish</b>	Unlimited					
<sup>10</sup> <b>Other Fish<sup>5/</sup></b>	Unlimited					

**TABLE 1b (South)**

<sup>5/</sup> "Other fish" are defined at § 660.11 and include sharks (except spiny dogfish), skates (excluding longnose skate), rattfish, morids, grenadiers, and kelp greenling.

<sup>6/</sup> The Rockfish Conservation Area is an area closed to fishing by particular gear types, bounded by lines specifically defined by latitude and longitude coordinates set out at §§ 660.71-660.74. This RCA is not defined by depth contours, and the boundary lines that define the RCA may close areas that are deeper or shallower than the depth contour. Vessels that are subject to the RCA restrictions may not fish in the RCA, or operate in the RCA for any purpose other than transiting.

<sup>7/</sup> South of 34°27' N. lat., the RCA is 100 fm line - 150 fm line along the mainland coast; shoreline - 150 fm line around islands.

**To convert pounds to kilograms, divide by 2.20462, the number of pounds in one kilogram.**

### RCA for a Rationalized Trawl Fishery in 2011

Under a rationalized fishery, the Council maintains the ability to adjust the RCA as a routine inseason management measure. Under the final preferred alternative for 2011-2012, the Council maintained the 2010 RCA configuration, rejecting alternatives to reconfigure the 2011 RCA for the start of the year. The Council cautioned that while individual accountability is anticipated to reduce bycatch, the success of the program needs to be evaluated before adopting a more liberal RCA structure.

New information became available to the Council at this meeting, regarding higher than anticipated mortality of darkblotched rockfish in 2009 ([Agenda Item H.2.b, Supplemental NMFS](#)

[Total Mortality Report](#)) and in 2010 ([Agenda Item H.3.b, Supplemental GMT Report](#)). At this meeting, the Council could consider changes to the RCA that will apply to vessels fishing their quota in the rationalized fishery, beginning in January 2011. **In light of this new data, the Council could consider shifting the seaward boundary of the trawl RCA north of 40°10' N. lat. seaward in summer months to close some areas where darkblotched are encountered.** However, the GMT notes that one of the benefits of the rationalized fishery is to achieve individual accountability of catch and bycatch. If the Council thinks that a change is warranted, from the RCA structure adopted in June 2010, then they could request that NMFS consider changing the trawl RCA boundaries for January 2011.

*Sablefish North of 36° N. latitude*

The 2010 sablefish OY north of 36° N. latitude is 6,471 mt and under the delay in implementing the 2011-2012 harvest specifications, the higher OY and the associated allocations and management measures (e.g., trip limits and limited entry fixed gear tiers) would continue to be in place when the 2010 regulations rollover into 2011. Under the Council's final preferred alternative for 2011, the ACL would be reduced to 5,515 mt and the proposed allocations and management measures would be adjusted accordingly. There are conservation and management concerns with allowing the 2010 OY and higher allocations and management measures to remain in place for the start of 2011. For example, the sablefish tiers for the limited entry fixed gear fleet will begin being fished on the April 1 fishery start date and it would be very difficult, if not impossible, to reduce the tiers when the lower sablefish ACL and associated allocations are published (as late as April 29) in the 2011-2012 final rule. **As such, the GMT recommends that the Council request that NMFS consider the lower sablefish harvest specifications and associated tier limits as part of the analysis in the environmental assessment and emergency rule package proposed by NMFS (Table 12 and Table 13).** The sablefish harvest specifications and allocations are the same as what was decided under the 2011-2012 harvest specifications process and included in the 2011-2012 proposed rule.



**Table 12. Proposed sablefish allocations for 2011, based on the Council recommended and NMFS proposed 2011 sablefish OY (in mt).**

Year	Sablefish OY N of 36° N lat	Tribal Share a/	Research, Rec., EFP b/	Non-Tribal Comm. Share	LE Share	LE Trawl			LE FG			Open Access		
						LE Trawl Share	At-sea Whiting Set Aside	Non-Whiting Trawl	LE FG Share	LE FG Primary	LE FG DTL	OA Share	Incidental OA removal	OA Fin
2011	5,515	552	22.1	4,941	4,477	2,597	50	2,547	1,880	1,598	282	464	17	4

a/ This is the total tribal share, which is reduced by 1.5% to account for discard mortality.

b/ In 2009 and 2010 the incidental open access amount came off the top, where as in 11-12 it comes off the OA share per the order of operations outlined in Amendment 21.

**Table 13. Proposed 2011 limited entry fixed gear sablefish tier limits based on the Council recommended and NMFS proposed 2011 sablefish OY of 5,515 mt.**

Tier	Amount
1	41,379 lb
2	18,809 lb
3	10,748 lb

## Fixed Gear Sablefish North of 36° N Lat.: Yelloweye Rockfish Impacts

In response to Council guidance on yelloweye rockfish apportionment using the June 2010 Scorecard, the GMT determined that the 2010 regulations that automatically roll over to 2011 may result in yelloweye rockfish impacts at or below the adjusted scorecard value (i.e., projected impacts are at 0.7 mt, the scorecard at 0.9 mt). Under current projections, the 0.9 mt could even accommodate moving the 125 fm line of Oregon in to 100 fm. Again, the Council's preferred yelloweye ACT of 17 mt would allow 1.3 mt, which coincidentally equals the estimate of total catch in these fisheries during 2009.

Yet as we highlighted in the first inseason statement, at this point we are unsure how bycatch rates will change in the model once updated with the new depth and area specific bycatch rates from 2009. We are fairly certain that projected impacts will increase and the 0.9 mt may be insufficient even with the 125 fm line left in place.

The Council may thus wish to consider pushing the RCA boundaries in one or more of the areas seaward. Table 14 reproduces the options available to the Council as routine management measures that we presented in our earlier report. However, without the new bycatch rates incorporated, we are unsure how these projected reductions might change.

The option most likely to achieve further reductions in yelloweye bycatch involves moving the area North of Pt. Chehalis to 125 fm or 150 fm. As we highlighted earlier, either change has the effect of eliminating access to dogfish in that area. This fishery has a limited window from February to June so an adjustment back to 100 fm in April would allow dogfish targeting during part of that season.

On the timing of catch in the non-nearshore fisheries, our rough estimate is that 30-40 percent of sablefish catch occurs by April 1. And last June, we estimated that 50 percent of the catch would then have accrued by the end of June. Yelloweye bycatch rates are expressed in terms of landed sablefish catch, so with an assumption that the rate holds true throughout the year, yelloweye projected impacts follow these same projections. Yet yelloweye catch is rare and observed only few times during the year making this assumption questionable.

Table 14. Estimated reductions in projected yelloweye bycatch (mt) in the non-nearshore fixed gear fisheries under four alternative configurations of the seaward non-trawl RCA boundary. The shaded areas indicate depths closed by the non-trawl RCA seaward boundary.

	40°10' - Col./Eur. line 43°	Col./Eur. line 43° - Cascade Head 45.064°	Cascade Head 45.064° - Pt. Chehalis 46.888°	North of Pt. Chehalis 46.888°	Est. Change
<b>A.</b>	150 fm				(0.1)
	125 fm				
	100 fm				
					Est. Change
<b>B.</b>	150 fm				(0.2)
	125 fm				
	100 fm				
					Est. Change
<b>C.</b>	150 fm				(0.3)
	125 fm				
	100 fm				
					Est. Change
<b>D.</b>	150 fm				(0.4)
	125 fm				
	100 fm				

Sablefish Daily Trip Limit (DTL) Fisheries North of 36° N. lat.

LIMITED ENTRY

The sablefish allocation for the Limited Entry Fixed Gear sablefish DTL fishery north of 36° N. latitude would need to be decreased from 321 mt in 2010 to 282 mt in 2011, under a lower OY/ACL. The GMT used a recently updated model to help predict landings of sablefish for this limited entry sablefish DTL fishery (see Appendix A, Description of Projection Models, 2011-2012 Groundfish Harvest Specifications, Draft Environmental Impact Statement). Using this updated model, the GMT identified a set of trip limits that were projected to achieve 90% of the allocation for 2011, or 254 mt (Table 15; See the 2011-2012 DEIS).

Table 15. Trip limit options for the Limited Entry Fixed Gear sablefish DTL fishery north of 36° N. latitude for 2011. The allocation for this fishery under the proposed 2011 OY would be 282 mt. Option 1 represents DEIS-proposed trip limits, Option 2 represents trip limits shown in the 2010 regulations, and option 3 represents trip limits that were projected to attain 100% of the allocation.

Option	Weekly trip limit (lbs)	Bimonthly trip limit (lbs)	Projected landings (mt)	Percent of allocation landed
1 (2011 DEIS)	1,900 (Jan-Dec)	6,500 (Jan-Feb) 7,500 (Mar-Oct) 6,000 (Nov-Dec)	254	90%
2 (2010 Regs)	1,750 (Jan-Dec)	7,000 (Jan-Jun) 8,500 (Jul-Oct) 8,000 (Nov-Dec)	298	106%
3	2,000 (Jan-Dec)	7,000 (Jan-Jun) 8,000 (Jul-Dec)	284	100%

Under the current situation, where the 2010 regulations will roll over and management measures described in the 2011-2012 DEIS will be delayed, projected landings using 2010 trip limits will exceed the proposed 2011 harvest guideline by 6% (Table 15). Hence, inseason trip-limit adjustments are necessary to ensure that the allocation is not exceeded.

Two options are presented in Table 15 that are projected to reach 90% or 100% of the allocation. The GMT discussed the pros and cons of modeling to attain 90% versus 100% of the allocation for this fishery (H.3.b, Supplemental GMT Report, November 2010). The GMT recommends adopting trip limits shown under option 3, where the goal is to reach 100% of the allocation,

because there will be opportunities to adjust trip limits later in 2011 if catch rates are higher than expected.

Weekly trip limits are not included in the projection model because this type of limit did not significantly affect landings (see the 2011-2012 DEIS). However, retaining some level of weekly trip limits is recommended because we are uncertain of the impacts if weekly limits were completely removed. Weekly trip limits should be no less than 25% of the bi-monthly limit to improve safety and improve efficiency relative to the number of weekly trips needed to catch the bi-monthly limit (H.3.b, Supplemental GMT Report, November 2010; 2011-2012 DEIS).

**The GMT recommends implementing option 3 trip limits beginning January 1, 2011, which is cumulative trip limits of 2,000 lbs/week for Periods 1 – 6 not to exceed 7,000 lbs/2 months for Periods 1 – 3 and 8,000 lbs/2 months for Periods 4 – 6..**

#### OPEN ACCESS

The sablefish allocation for the Open Access Fixed Gear sablefish DTL fishery north of 36° N. latitude will decrease from 529 mt in 2010 to 464 mt in 2011. The GMT did not recommend changes to the daily trip limits for this fishery in the 2010-2011 DEIS. Hence, the trip limits under the 2010 regulations for this fishery are equal to those proposed in the 2010-2011 DEIS. However, if left unchanged, the regulations that would become effective on January 1, 2011 are projected to exceed the 2011 allocation by 15% (Table 16). Hence, the GMT provides two options that were projected to either (a) reach the 100% allocation or (b) reach 90% of the allocation.

Table 16. Trip limit options for the Open Access Fixed Gear sablefish DTL fishery north of 36° N. latitude for 2011. The 2011 allocation would be based on the lower of 2010 and 2011 (ACL), which equals 464 mt. Option 1 represents DEIS-proposed trip limits and 2010 trip limits, whereas options 2 and 3 represent trip limits that were projected to attain 100% and 90% of the 464 mt allocation, respectively.

Option	Daily trip limit (lbs)	<u>or</u> One landing per week (lbs)	Bimonthly trip limit (lbs)	Projected landings (mt)	Percent of allocation (464 mt) landed
1 (2011 Proposed Allocations & 2010 Management Measures)	300 (Jan-Dec)	800 (Jan-Jun) 950 (Jul-Dec)	2,400 (Jan-Jun) 2,750 (Jul-Dec)	536	115%
2	300 (Jan-Dec)	950 (Jan-Jun) 1,200 (Jul-Dec)	1,900 (Jan-Jun) 2,250 (Jul-Dec)	467	101%
3	300 (Jan-Dec)	800 (Jan-Jun) 950 (Jul-Dec)	1,600 (Jan-Jun) 1,850 (Jul-Dec)	419	90%

Two options, in addition to the 2010 trip limits, are presented in Table 16 that are predicted to result in 100% or 90% attainment of the allocation. The GMT recommends adopting trip limits shown under option 2, where the goal is to reach 100% of the allocation, because there will be opportunities to adjust trip limits later in 2011 if catch rates are higher than expected.

The model used to project landings for this fishery does not use daily or weekly trip limit levels as dependent variables because they were not significant in the model runs. The GAP asked the GMT to consider retaining the daily trip limit at 300 lbs/day and increasing the weekly limit to 50% of the bimonthly limit for consistency with proposed trip limits south of 36°. There was concern that a large discrepancy in weekly limits between the north and south may cause a large shift in effort.

**The GMT recommends implementing option 2 trip limits beginning January 1, 2011, which is (a) 300 lbs/day OR one landing per week not to exceed 950 lbs and a cumulative bimonthly limit of 1,900 lbs/2 months (Periods 1 - 3) and (b) 300 lbs/day OR one landing**

**per week not to exceed 1,200 lbs and a cumulative bimonthly limit of 2,250 lbs (Periods 4 - 6).**

*Limited Entry and Open Access Sablefish Fishery South of 36° N. lat.*

Under Agenda Item H.3.b, the GMT requested Council guidance to determine the catch sharing percentages to use as a basis for modeling trip limits for the limited entry and open access sectors. The Council chose to use a 55%:45% (LE:OA) sharing based on the historical landings of non-trawl vessels from 2000-2009.

Limited Entry

Under the 2011-12 spex, a new model was constructed to predict bimonthly sablefish landings by the LE sector south of 36° N. lat. based on limited entry trip limits for that region. This model is similar in structure to the one used for LE DTL north of 36° N latitude. Based on the catch sharing provided by the Council (55%), the LE sector would receive 403 mt out of the non-trawl 733 mt ACL. The GMT modeled the following trip limits for Council consideration (Table 17). The options are meant to bracket potential risk given the new model.

Table 17. Range of trip limits for the limited entry sector (403 mt, 55% of catch sharing)

	Trip Limit	Mt	% of catch sharing
Option 1	2,000 lb/week	341	85%
Option 2	2,100 lb/week	387	96%
Option 3	2,100 lb/week (periods 1-3) 2,200 lb/week (periods 4-6)	400	99%

Open Access

Under the 2011-12 spex, the GMT also constructed a new trip limit model for the open access sector which is similar to the model used for the OA DTL north of 36° N latitude. Due to a dramatic increase in the number of vessels participating in the fishery, a lack of contrast in historical trip limits, and delays in processing of recent fish ticket data, the GMT constructed trip limits based on the following assumptions: 50 vessels participate in the open access sector and every vessel achieves the bi-monthly limit (Table 18). Actual catches may be lower or higher than those predicted based on the actual number of vessels and level of participation.

Based on the catch sharing provided by the Council (45%), the OA sector would receive 330 mt out of the 733 mt non-trawl ACL. The GMT constructed the following trip limits for Council consideration.

Table 18. Range of trip limits for the open access sector (330 mt, 45% of catch sharing)

	Trip Limit	mt	% of catch sharing
Option 1	300 lb/day, 1,000 lb/week, not to exceed 2,000 lb/2 months	272	82%
Option 2	300 lb/day, 1,100 lb/week, not to exceed 2,200 lb/week	299	91%
Option 3	300lb day, 1,200 lb/week, not exceed 2,400 lb/2 months	327	99%

The GMT acknowledges that the choice of a trip limit is a matter of risk, particularly in a situation where there is no formal allocation and the actions of one sector can affect another. Any of the combination of trip limits presented will keep both sectors at or below the Conception Area non-trawl ACL.

*Fixed Gear Nearshore*

In response to Council guidance on yelloweye rockfish apportionment using the June 2010 Scorecard, the GMT determined that no additional management measures will be needed for the nearshore commercial fishery prevent exceeding harvest of yelloweye rockfish. Adjustments made by the Council increased the allocation of yelloweye rockfish for the fixed gear nearshore fishery from 0.9 to 1.1 mt. The additional 0.2 mt raised the allocation of yelloweye rockfish to the level shown as the Final Preferred Alternative in the 2011-2012 DEIS. Hence, the Final Preferred Alternative management measure described in the 2011-2012 DEIS for fixed gear nearshore fisheries will maintain harvest of yelloweye rockfish below 1.1 mt.

The following table (Table 19) provides landings of targeted nearshore species (mt) for the fixed gear nearshore fishery for January – June relative to the entire year. Landings during the first half of the year on average are less than 45% for each of 2007, 2008, and 2009. Hence, the majority of impacts to overfished species in this fishery occur during the second half of the year.

Table 19. Summary of target species landings in the nearshore fishery through June 30 for 2007-2009

	2007	2008	2009
Landings through June 30	182.5	221.0	241.1
Annual Landings	491.6	504.7	456.8
% of annual landings	37.1%	43.8%	52.8%

Minor Nearshore Rockfish North of 40°10' N. lat.

The GMT examined the performance of current management measures to keep total mortality within the proposed ACL of 99 mt. WGCOP reports indicate that under the same management measures, average total mortality for 2006-2009 has been 97.3 mt (Table 20), even though the harvest guideline for some of those years was 150 mt. The commercial total mortality estimates for 2007 are extremely high and may be an overestimate. The GMT is working with WGCOP to confirm this value.



The GMT does not recommend any changes to management measures at this time because past management measures have, on average, shown to stay within the proposed 99 mt ACL.

Table 20. Total mortality of minor nearshore rockfish north from 2006-2009 compared to the proposed 2011 ACL. Source: Total Mortality Reports (2006-2009)

	Total Mortality (mt)					
	2006	2007	2008	2009	Average	Proposed 2011 ACL
North of 40°10' N latitude	96	133	97	63	97.3	99

Petrale Seasonal Catch Distribution

We offer Table 21 and Figure 1 to show how petrale catches have distributed throughout the fishing year. The Trawl Individual Quota (TIQ) program has the potential to change these distributions. Some have argued that there will be little trawl effort at the start of the year. Others speculate that some individuals may wish to fish the bulk of their petrale quota in the first few months of the year when petrale can be found in spawning aggregations and harvested with a high catch per unit effort. We just do not know how the dynamic will change. Holding back the full allocation of QP until April obviously limits an individual's choice of when to fish somewhat, yet those wishing to fish their full allocation might be able to do so with QP trades.

Table 21. Monthly LE non-whiting bottom trawl landings of petrale sole as a percentage of all groundfish landings for 2008.

Month	Petrale	Trawl grnd	Pet/Twl grnd
<b>Jan</b>	<b>478</b>	<b>1,706</b>	<b>28%</b>
Feb	481	2,294	21%
Mar	176	2,250	8%
Apr	89	2,206	4%
May	73	2,400	3%
Jun	97	1,755	6%
Jul	89	2,127	4%
Aug	82	1,746	5%
Sep	90	2,228	4%
Oct	70	2,337	3%
Nov	145	2,034	7%
Dec	348	1,752	20%

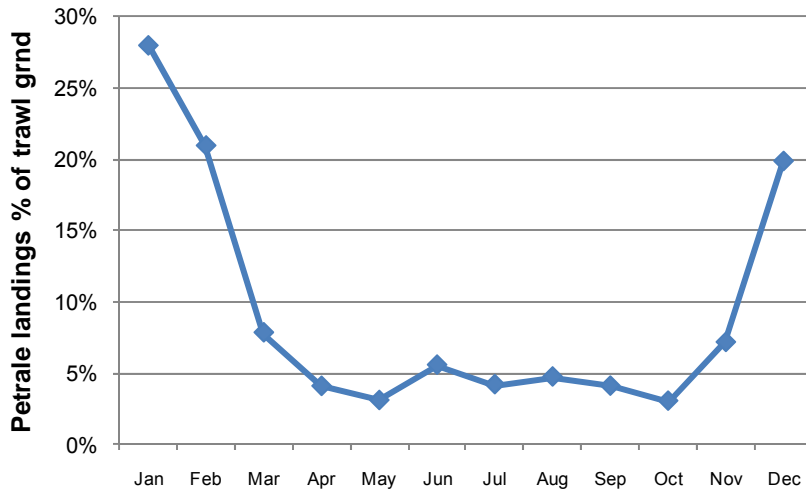


Figure 1. Monthly LE non-whiting bottom trawl landings of petrale sole as a percentage of total groundfish landings for 2008.

Non-trawl Allocation of Petrale Sole

Because of the overfished declaration for petrale sole, the Council temporarily suspended the Amendment 21 allocations and revisited the allocation of the rebuilding ACL among the trawl and non-trawl sectors during the 2011-12 SPEX. The Council chose to allocate an *amount* to the non-trawl sector instead of a *proportion*. The non-trawl amount was 35 mt.

We raise this point in case the Council wishes to give NMFS guidance on how to handle the split between trawl and non-trawl in an emergency rule and if NMFS does not approve the Council's preferred rebuilding ACL for petrale sole for 2011. If the Council intended that 35 mt to apply across a wide range of ACL levels, NMFS decision on the 2011 ACL might be irrelevant. If, however, the Council would prefer to maintain flexibility on the non-trawl allocation, then guidance from the Council at this time might be helpful.

Figure 2 reproduces the non-trawl catch data we presented to the Council in June.<sup>2</sup> This information was also presented to the Council in the Amendment 21 DEIS.

Table 22 shows how the non-trawl portion of the rebuilding ACL under the three alternative rebuilding ACLs considered by the Council in June 2010. As a reminder, Alternative 3 is the Council's preferred alternative.

<sup>2</sup> PFMC June 2010 Briefing Book, Agenda Item B.7.b, Supplemental GMT Report:

The GMT considered Council guidance to suspend the allocations under Amendment 21 while petrale is rebuilding. The GMT examined total non-trawl catch from the Amendment 21 DEIS and noted a marked decrease in catch in the non-trawl sectors beginning in 2004 [represented in Figure 2]. Whether this is the result of management constraints, such as RCA configurations, or improved total mortality accounting through the West Coast Groundfish Observer Program is unclear; however, the general reduction appears to have held for the last several years. As such, similar to the approach suggested by the GMT for other species' "off the top" estimates, the Council may want to establish an allocation such that it accommodates what may be expected in non-trawl sectors without needing to change the trawl allocation inseason or exceeding the ACL. As shown in Figure 2, the highest catch in recent years is 12.2 mt.

Table 22. Trawl allocation under the Council’s three petrale rebuilding ACL alternatives with a non-trawl allocation of 35 mt.

	Alternative 1	Alternative 2	Alternative 3
ACL (mt)	459	776	976
Set aside (mt)	65.4	65.4	65.4
Non-trawl (mt)	35	35	35
Trawl (mt)	358.6	675.6	875.6
Non-trawl (% of ACL)	7.6%	4.5%	3.6%

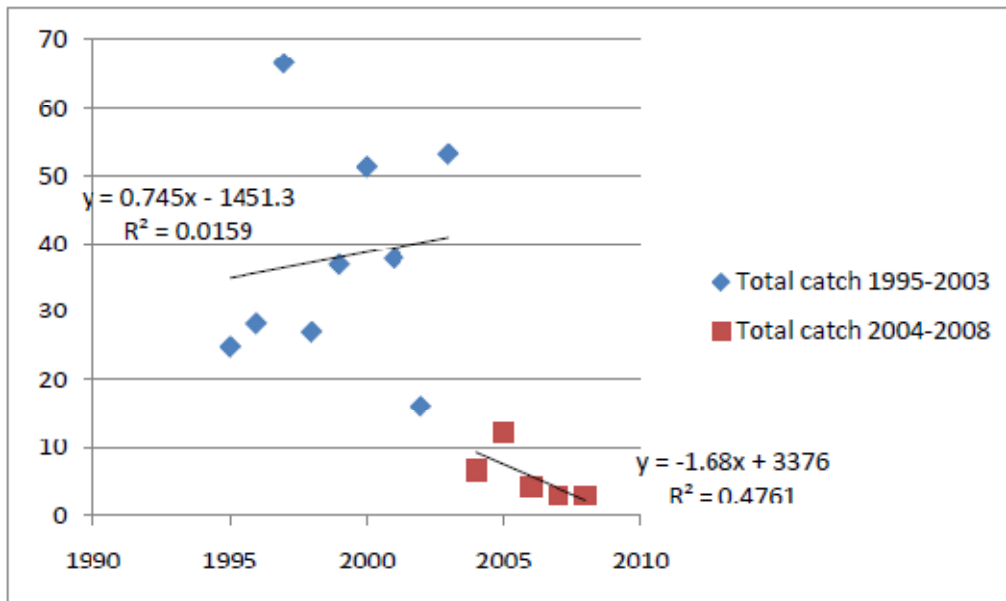


Figure 2. Non-trawl catch of petrale sole (mt), 1995-2008.

Longnose skate management

The 2009 Total Mortality report shows that catch of longnose skate exceeded the OY by 8 percent (Agenda Item H.2.b, Supplemental NMFS Mortality Report). With the precautionary adjustment to the OY, this catch represents only 48 percent of the ABC.

Longnose skate was removed from the Other Fish complex and given a stock specific OY for the first time in 2009. With this stock specific OY in place, the groundfish regulations require landings of longnose skate to be sorted.

There is no trip limit in place now and no trip limit scheduled for 2011. Up until 2009, the best available catch information suggested that catches of longnose skate were around 800 mt per year.

Information on the total catch of skates catch has been highly uncertain because of the practical challenges involved with sampling these species (e.g., they can be large or landed in mutilated form), because many skates are discarded, and because skates have traditionally been a lower

priority for management. The sorting requirement for longnose skate and the growing time series of West Coast Groundfish Observer Program (WCGOP) data on discards have improved our catch tracking ability and will continue to improve catch estimates.

Table 12 of the Total Mortality report shows that 87.7 percent of the estimated longnose catch occurred in the non-whiting trawl fleet (1,275.4 mt) and 11.9 percent in the non-nearshore fixed gear fisheries (173.3 mt). Tables 2a and Tables 2b of that report show that trawl catch of longnose occurs both north and south of 40° 10' N. latitude and both seaward and shoreward of the RCA.

It appears likely that catch may also exceed the OY in 2010. PacFIN data, which is current through September in OR and August in CA and WA, shows that landings in 2010 are already 97.6 percent of 2009 landings. We will not have information on 2010 discarded catch until the 2010 Total Mortality report is released at this time next year.

Thinking toward 2011, the 100 percent observer coverage of the trawl individual quota program could give us much more timely information on total catch. However, Amendment 20 does not include longnose skate as an IFQ management species and so do not know whether catch will be reported on the same timeline as for stocks that are managed with QP/IBQ. **The GMT requests that information on longnose skate mortality from the observer program be provided on a timely basis to facilitate the potential need for inseason management to avoid future overages of the OFL.**

The 2011-12 SPEX DEIS does include an analysis of a trip limit for longnose skate. The Council considered implementing the limit for the trawl sector yet, based on our recommendation and review of recent catch levels, the trip limit was thought to be unnecessary.

Because a trip limit was analyzed in the DEIS, the Council can implement a trip limit as a routine management measure after the SPEX regulations go into effect (expected in April 2010). We would need more time to review and analyze the latest information on catch and discard before bringing the Council options on trip limits for the trawl and/or non-nearshore fixed gear fisheries.

As the Council well knows, trip limits are limited in their ability to affect total catch. A trip limit can reduce the economic incentive to target a stock, yet on its own, a trip limit creates no direct incentive to avoid catch that is incidental. Vessels will pursue target stocks and incidental catch accrues. If the ratio of catch to target stocks is reasonably known, trip limits set on target stocks can indirectly control the catch of incidental stocks. However if the trip limit is set far from the incidental encounter rate, the effect of the limit will be either to constrain the catch of target stocks unnecessarily or induce discard of incidental catch without reducing total catch overall.

As an alternative to trip limits, the Council could also consider adding longnose skate as a quota species or implementing a sector specific ACL to control total catch. We discussed whether the RCA boundaries could be used to lower bycatch and concluded that they probably could not because of the wide range over which catch was observed. We did not analyze alternatives to trip limits in the 2011-12 DEIS and so other catch control measures would have to be

implemented by a regulatory or FMP amendment (i.e. they would not qualify as routine management measures).

As we understand it, the Council chose to not include longnose skate as a quota species, at least in part, because of the difficulty in allocating quota share (QS). The uncertain landings information makes allocation based on permit landings history impractical. The Council could consider basing allocations on equal sharing or on some pro-rata or bycatch rate as is being done for halibut IBQ and QS for overfished species. These alternative allocation schemes were not analyzed for longnose skate during the development of Amendment 20.

### **2009 Total Mortality Report**

We have touched on the 2009 Total Mortality Report multiple times during the two inseason sessions. As management requires, we spend most of our focus on those stocks for which catch was higher than expected (i.e. darkblotched and longnose skate). We end here with some brief perspectives on those stocks for which catch was considerably lower than expected.

As summarized in Table 20 of the Total Mortality report, total catch was lower than the OY for all rebuilding species but darkblotched. POP catch came in at 96 percent of the OY yet catch for the other stocks all came in considerably less than the OY. For yelloweye, the Council had planned 17 mt for yelloweye and catch came in at 11 mt. Cowcod management measures were targeted at 3 mt and set in contemplation that catch might exceed that amount yet total catch estimate came in at just less than 1 mt. Widow rockfish catch came in at 37 percent of the OY, bocaccio at 24 percent, and canary at 36 percent. The canary catch of 38 mt is perhaps most surprising to us given the relative difficulty we have had at keeping canary catch within the OY.

The 2009 Total Mortality report again underscores the challenges of catch projection. At this meeting, the Council has been considering what management measures are necessary to keep yelloweye catches within 14 mt. Based on the 2009 estimated catch one might think the 2009 management measures would be sufficient. Yet the safe bet is that 2010 will be completely different. The Council made adjustments mid-season 2010 to bring catch projection to 14 mt. We of course will not be surprised if those changes produce catches above 14 mt.

We use the best information and data we have available, yet catch is invariably uncertain. With data collected under relatively consistent conditions our projection models can achieve reasonable accuracy. Yet as the Council well knows, management measures have changed significantly since RCA management began and we often make projections with limited data. We expect our models to keep improving, yet also expect estimates for rarely caught species like yelloweye and cowcod to remain uncertain and variable. Table 23 shows how the Council's 2009 planned catch compares to the total mortality estimates for cowcod, canary, and yelloweye.

Management uncertainty as an integral piece in the analysis of the Council's rebuilding plans. The Council considers the needs of fishing communities largely on our evaluation of the management measures needed to keep catches within alternative harvest amounts during the SPEX analysis. Yet as we have continued this approach, and as shown by the 2009 catch estimates, we find more examples to show how our evaluations are just not that precise. And where we underproject catch, the Council has to enact more restrictive management measures to

keep catch within the established limits. This of course means that the management measures have more of an adverse impact on fishing communities than was contemplated when the needs of fishing communities were considered in the analysis.

In close, we urge the Council and NMFS to not overlook management uncertainty in the continued analysis of Amendment 16-5. In future cycles, we hope to have opportunity to consider how imprecision in our projections can factor more explicitly into the analysis of the Council's rebuilding plans.

Table 23. The 2009 Total Mortality estimates compared to the Council's planned mortality (as reflected by scorecard projections/harvest guidelines/bycatch caps) for selected fishery sectors and other activities.

<b>Cowcod</b>	<b>Total Mortality</b>	<b>Scorecard</b>	<b>+/-</b>
<i>Bottom Trawl</i>	0.5	1.3	<b>0.8</b>
<i>Non-nearshore</i>	0.1	0.0	<b>(0.1)</b>
<i>Nearshore</i>	0.0	0.0	0.0
<i>CA rec</i>	0.2	0.3	<b>0.1</b>
<i>Research</i>	0.1	0.2	<b>0.1</b>
<i>Other Incidental</i>	0.0	0.3	<b>0.3</b>

<b>Canary</b>	<b>Total Mortality</b>	<b>Scorecard</b>	<b>+/-</b>
<i>Bottom Trawl</i>	8.9	21.8	<b>12.9</b>
<i>Non-nearshore</i>	0.3	2.8	<b>2.5</b>
<i>Nearshore</i>	3.5	3.5	0.0
<i>CP</i>	0.2	6.1	<b>5.9</b>
<i>Mothership</i>	0.6	4.3	<b>3.7</b>
<i>Shoreside Hake</i>	1.8	7.6	<b>5.8</b>
<i>Tribal Hake</i>	1.7	1.4	<b>(0.3)</b>
<i>Tribal Non-Hake</i>	5.9	5.2	<b>(0.7)</b>
<i>WA rec</i>	0.5	4.9	<b>4.4</b>
<i>OR rec</i>	3.0	16.0	<b>13.0</b>
<i>CA rec</i>	11.2	22.9	<b>11.7</b>
<i>Research</i>	0.5	8.0	<b>7.5</b>
<i>Other Incidental</i>	0.0	3.6	<b>3.6</b>

<b>Yelloweye</b>	<b>Total Mortality</b>	<b>Scorecard</b>	<b>+/-</b>
<i>Bottom Trawl</i>	0.1	0.6	<b>0.5</b>
<i>Non-nearshore</i>	1.3	0.9	<b>(0.4)</b>
<i>Nearshore</i>	0.5	1.2	<b>0.7</b>
<i>WA rec</i>	1.6	2.7	<b>1.1</b>
<i>OR rec</i>	2.0	2.5	<b>0.5</b>
<i>CA rec</i>	3.8	2.8	<b>(1.0)</b>
<i>Research</i>	0.7	2.4	<b>1.7</b>
<i>Other Incidental</i>	0.4	0.6	<b>0.2</b>
<i>Tribal FG</i>	0.3	2.3	<b>2.0</b>

**GMT Recommendations:**

- 1. Consider whether to recommend to NMFS that the Council be allowed flexibility to adjust the off the top deductions in April 2011.**
- 2. Due to the delay in implementing the 2011-2012 harvest specifications and management measures and the uncertainty surrounding the 2011 overfished species harvest specifications, the Council may wish to retain flexibility for adjusting the two-year trawl and non-trawl allocations for these species in 2011, as needed.**
- 3. Consider implementing the non-routine inseason action regulations recommended by the states to allow the recreational fisheries to begin 2011 as proposed in the 2011-2012 SPEX DEIS.**
- 4. Consider trip limits for 2011 if rationalization is delayed.**
- 5. Request NMFS to implement the landing allowances for non-IFQ species and Pacific whiting coastwide, as described in Tables 1b (North) and 1b (South) in the November 3, 2010 proposed rule ([75 FR 67810](#)).**
- 6. Request that NMFS consider the lower sablefish harvest specifications and associated tier limits as part of the analysis in the environmental assessment and emergency rule package proposed by NMFS (Table 12 and Table 13).**
- 7. For the Limited Entry Fixed Gear Sablefish DTL fishery north of 36° N. latitude beginning January 1, 2011, implement cumulative trip limits of 2,000 lbs/week for Periods 1 – 6 not to exceed 7,000 lbs/2 months for Periods 1-3 and 8,000 lbs/2 months for Periods 4-6.**
- 8. For the Open Access Fixed Gear Sablefish DTL fishery north of 36° N. latitude beginning January 1, 2011, implement trip limits for Periods 1-3 of 300 lbs/day OR one landing per week not to exceed 950 lbs and a cumulative bimonthly limit of 1,900 lbs/2 months and for Periods 4-6 of 300 lbs/day OR one landing per week not to exceed 1,200 lbs and a cumulative bimonthly limit of 2,250 lbs.**
- 9. Consider trip limits for the limited entry and open access fixed gear fisheries south of 36° N, as outlined in Table 17 and Table 18.**
- 10. The GMT requests that information on longnose skate mortality from the observer program be provided on a timely basis to facilitate the potential need for inseason management to avoid future overages of the OFL.**



**Projected mortality impacts (mt) of overfished groundfish species for Sept 2010 updated based on updated research and latest bottom trawl, Pacific whiting, and Oregon recreational data.**

Fishery	Bocaccio b/	Canary	Cowcod	Dkbl g/	POP	Widow	Yelloweye
<b>Limited Entry Trawl - Non-whiting</b>	<b>22.4</b>	<b>11.9</b>	0.3	<b>218.8</b>	<b>103.1</b>	<b>14.4</b>	0.3
<b>Limited Entry Trawl - Whiting</b>							
At-sea whiting motherships a/		3.3		6.0	0.5	67.0	0.0
At-sea whiting cat-proc a/		4.8		8.5	0.5	95.0	0.0
Shoreside whiting a/		5.9		10.5	<b>16.5</b>	117.0	0.0
Tribal whiting		4.3		0.0	7.2	5.0	0.0
<b>Tribal</b>							
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
<b>Fixed Gear Sablefish</b>	0.0	2.5	0.0	4.5	0.4	0.0	0.9
<b>Fixed Gear Nearshore</b>	0.3	3.6	0.0	0.0	0.0	0.3	1.1
<b>Open Access: Incidental Groundfish</b>	0.8	1.7	0.0	15.0	0.0	3.3	0.3
<b>Recreational Groundfish e/</b>							
WA		20.9					<b>5.4</b>
OR						1.0	
CA	67.3	22.9	0.3			6.2	2.7
<b>EFPs</b>	11.0	1.3	0.2	1.5	0.1	11.0	0.2
<b>Research: Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs.</b>							
	2.0	4.5	0.2	2.0	2.0	5.7	<b>0.5</b>
<b>TOTAL</b>	103.8	92.7	1.0	266.8	134.0	365.9	13.7
<b>2010 OY f/</b>	288	105	4.0	330	200	509	14
<b>Difference</b>	184.2	12.3	3.0	63.2	66.0	143.1	0.3
<b>Percent of OY</b>	36.0%	88.3%	25.0%	80.8%	67.0%	71.9%	97.9%
Key	= either not applicable; trace amount (<0.01 mt); or not reported in available data						
a/ Non-tribal whiting values for canary, darkblotched, and widow reflect bycatch limits for the non-tribal whiting sectors. All other species'							
b/ South of 40°10' N. lat.							
e/ For California, values in scorecard represent projected impacts for all species except canary and yelloweye rockfish, which are the prescribed harvest guidelines. For Washington and Oregon, the canary value represents the HG. For yelloweye, the value represents projected impacts for the Oregon fishery (2.8 mt) through the end of the year and the Washington share of the HG (2.6 mt).							
f/ 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).							
g/ Regulations specify a commercial harvest guideline of 288 mt (see 75FR39178)							

**Projected mortality impacts (mt) of overfished groundfish species for 2010 updated based on June inseason action on YE and trawl inseason proposals.**

Council  
Guidance

Fishery	Bocaccio b/	Canary	Cowcod	Dkbl	POP	Widow	Yelloweye	Yelloweye
Limited Entry Trawl - Non-whiting	7.5	12.3	0.3	190.2	94.5	15.4	0.3	0.3
Limited Entry Trawl - Whiting								
At-sea whiting motherships a/		3.3		6.0	0.5	67.0	0.0	0.0
At-sea whiting cat-proc a/		4.8		8.5	0.5	95.0	0.0	0.0
Shoreside whiting a/		5.9		10.5	4.7	117.0	0.0	0.0
Tribal whiting		4.3		0.0	7.2	5.0	0.0	0.0
<b>Tribal</b>								
Midwater Trawl		3.6		0.0	0.0	40.0	0.0	0.0
Bottom Trawl		0.8		0.0	3.7	0.0	0.0	0.0
Troll		0.5		0.0	0.0		0.0	0.0
Fixed gear		0.3		0.0	0.0	0.0	2.3	2.3
Fixed Gear Sablefish	0.0	2.5	0.0	4.5	0.4	0.0	0.9	0.9
Fixed Gear Nearshore	0.3	3.6	0.0	0.0	0.0	0.3	1.1	1.1
Open Access: Incidental Groundfish	0.8	1.7	0.0	15.0	0.0	3.3	0.3	0.3
Recreational Groundfish e/								
WA		20.9					4.9	4.9
OR						1.0		
CA	67.3	22.9	0.3			6.2	2.7	2.7
<b>EFPs</b>	11.0	1.3	0.2	1.5	0.1	11.0	0.2	0.1
<b>Research: Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs.</b>								
	2.0	4.5	0.2	2.0	2.0	5.7	0.5	1.3
<b>TOTAL</b>	88.9	93.1	1.0	238.2	113.6	366.9	13.2	13.9
<b>2010 OY f/</b>	288	105	4.0	330	200	509	14	14
<b>Difference</b>	199.1	11.9	3.0	91.8	86.4	142.1	0.8	0.1
<b>Percent of OY</b>	30.9%	88.7%	25.0%	72.2%	56.8%	72.1%	94.3%	99.3%
Key	= either not applicable; trace amount (<0.01 mt); or not reported in available data							
a/ Non-tribal whiting values for canary, darkblotched, and widow reflect bycatch limits for the non-tribal whiting sectors. All other species' impacts								
b/ South of 40°10' N. lat.								
e/ Values in scorecard represent projected impacts for all species except canary and yelloweye rockfish, which are the prescribed harvest guidelines.								
f/ 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).								