

GROUND FISH MANAGEMENT TEAM REPORT ON  
FISHERIES IN 2015-2016 AND BEYOND HARVEST SPECIFICATIONS,  
MANAGEMENT MEASURES, AND AMENDMENT 24  
Checklist Items #26 and #26 – Trip Limit Analyses

The remaining management measures shown in [Agenda Item F.7.a, Attachment 6](#), June 2014: are provided below. Those management measures deal with trip limit alternatives for lingcod, slope rockfish, shortspine thornyhead, bocaccio rockfish, and shelf rockfish. They also summarize allowing lingcod retention during the currently closed period (December – April).

**Checklist Item #23: Non-trawl trip limit adjustments for lingcod N. of 40°10' N. lat. (increase), slope rockfish N. of 40°10' N. lat. (decrease), bocaccio S. of 34°27' N. lat. (increase), and shelf rockfish S. of 34°27' N. lat. (increase)**

*Slope Rockfish N. of 40°10' N. latitude*

The GMT reviewed the trip limit analysis submitted at this meeting, (Agenda Item F.7.b, Supplemental GMT Report 2) and provides the following guidance regarding the use of trip limits for slope rockfish for the non-trawl fishery north of 40°10' N. latitude. In sum, the GMT does not believe that reductions to trip limits will provide meaningful reductions to rougheye rockfish mortality, because rougheye rockfish is mostly caught incidentally while targeting sablefish (i.e., is mostly not targeted). Rougheye rockfish represents only a small fraction of overall catch (i.e., highly valued sablefish is the main target), and only a portion of the slope rockfish complex. Therefore, trip limits will likely not reduce rougheye rockfish mortality substantially, especially during unobserved trips.

*Lingcod north of 40°10' N. latitude, shortspine thornyhead north of 34°27' N. latitude, bocaccio south of 34°27' N. latitude, and shelf rockfish south of 34°27' N. latitude*

Trip limit analyses were completed for the 2015-2016 biennial management cycle for lingcod north of 40°10' N. latitude, shortspine thornyhead north of 34°27' N. latitude, and for bocaccio and the minor shelf rockfish complex south of 34°27' N. latitude in [Agenda Item F.7.a, Attachment 6](#) for each of the trip limits in Table 1. We want to highlight for the Council that the lingcod analysis summarized here was revised and included in [Agenda Item F.7.a., Supplemental Attachment 10](#). In addition, this lingcod analysis should be used only for current “summer” fishery (i.e., for the months May – November), and assumes no lingcod retention for December-April (i.e., “winter” months). See Item #26 for combined “summer” and “winter” lingcod trip limit analyses.

The estimated mortality amounts for these four fishery sectors are as follows.

**Table 1 . Proposed trip limits for the four fishery sectors analyzed for the 2015-2016 biennial management cycle. Trip limits are reported in pounds per vessel per two-month period (or by month for the OA lingcod sector), when fishing is allowed. For lingcod, reference to Agenda Item F.7.a Supplemental Attachment 10, June 2014. For the other fishery sectors, reference to Agenda Item F.7.a Attachment 6, June 2014.**

<b>Fishery Sector</b>	<b>Option 1a - No Action</b>	<b>Option 1b (no winter retention)</b>	<b>Option 1c (no winter retention)</b>
Lingcod LE	800 lb/2 months	1,200 lb/2 months	1,600 lb/2 months
Lingcod OA	400 lb/month	600 lb/month	800 lb/month

<b>Fishery Sector</b>	<b>Option 1 - No Action</b>	<b>Option 2a</b>	<b>Option 2b</b>
Shortspine thornyhead only	2,000 lb for periods 1-3 2,500 lb for periods 4-6	2,250 lb for periods 1-3 2,500 lb for periods 4-6	2,500 lb for all periods
Bocaccio LE	300 lb for periods 1 & 3 500 lb for periods 4-6	750 lb/2 months	1,000 lb/2 months
Bocaccio OA	100 lb for periods 1 & 3 200 lb for periods 4-6	250 lb/2 months	500 lb/2 months
Minor shelf rockfish complex LE	3,000 lb/2 months	4,000 lb/2 months	5,000 lb/2 months
Minor shelf rockfish complex OA	750 lb/2 months	1,500 lb/2 months	2,500 lb/2 months

For lingcod, Option 1b estimates a combined limited entry (LE) and open access (OA) mortality of 56.9 mt (4.2 percent of the lingcod non-trawl allocation amount). Option 1c estimates a combined LE + OA mortality of 75.9 mt (5.6 percent of the allocation). For shortspine thornyheads, Option 2a has a mortality estimate of 80.3 mt (96.4 percent of the non-trawl allocation). Option 2b has a mortality estimate of 83.4 mt (98.9 percent of the allocation). For bocaccio, Option 2a has a combined LE + OA mortality estimate of 8.8 mt (3.4 percent of the non-trawl allocation). Option 2b has a combined LE + OA mortality estimate of 15.5 mt (6 percent of the allocation). For the minor shelf rockfish complex, Option 2a has a combined LE + OA mortality estimate of 399 mt (29 percent of the non-trawl allocation). Option 2b has a combined LE + OA mortality estimate of 416 mt (30 percent of the allocation).

**The GMT recommends that the Council consider Option 1b for lingcod if the Council is only interested in increasing trip limits and not providing for winter retention (analysis of the combined trip limit and retention is provided below in item #26 below).** This alternative moderately increases May-October trip limits (e.g., increase by 400 lbs / 2 months for LE).

**The GMT recommends status quo (No Action alternative) trip limit amounts for shortspine thornyhead because any increased trip limits could cause the total estimated attainment to exceed the allocation amount.**

**The GMT recommends Alternative 2a for bocaccio (very modest trip limit increases) mainly because bocaccio is still considered an overfished species and until the stock is declared no longer overfished, it is prudent to continue to manage the stock conservatively.** West Coast Groundfish Observer Program (WCGOP) data were examined for the bocaccio fishery regarding potential mortality impacts to overfished species in the southern California bocaccio sector. Of those trips that were observed during 2011 and 2012 that had bocaccio, no encounters of overfished species were noted. Nevertheless, it can be assumed that some overfished species are probably taken occasionally, albeit in small quantities. Increased on-board observer data would facilitate better mortality estimates of overfished species taken in this fishery.

**Lastly, the GMT recommends Alternative 2a for the minor shelf rockfish complex mainly because of the uncertainty associated with mortality of overfished species taken in this fishery sector.** Despite this uncertainty, however, there are several items that need to be pointed out. Yelloweye rockfish are uncommon south of central California and are infrequently taken in the shelf rockfish fishery. Canary rockfish, while more common than yelloweye in southern California, are most abundant from central California north and tend not to be encountered in the southern California fisheries. Bocaccio, while taken in southern California with an apparent increasing stock status, are actively managed with its own conservative trip limits in what is a very small fishery. The number of vessels that have tapped into the bocaccio limited entry sector, for example, has averaged less than 10 per year for the past four or five years. There is a very limited interaction with cowcod, and since there is a complete prohibition on the take of cowcod by the fixed-gear fisheries; the commercial fleet avoids them as much as possible.

**Checklist Item #26: Non-Trawl: Allow Lingcod Retention in Periods 1, 2, and 6 (along with combined Options taken from #23 (above)).**

The GMT provided an analysis to evaluate impacts of allowing lingcod retention by the commercial non-trawl fisheries during the currently closed season (December through the following April). Lingcod had a full stock assessment in 2009, when it was found to be fully recovered. Lingcod mortality has been far below the ACL north and south of 42° N. latitude, with 34 percent and 16 percent attainment in 2012, respectively. The primary concern of this measure is impacts to overfished species. Two options were provided in the analysis. Option 1 used WCGOP data to estimate encounter rates during the currently closed season (Table 2). The winter trip limits shown under Option 1 in this statement are lower than the average expected catch of lingcod during the currently closed season (i.e., when lingcod are not targeted and must be discarded at sea). Hence, the GMT suggests that proposed Option 1 trip limits under this management measure (during December – April) represents the incidental catch of lingcod (i.e., non-targeted) during winter months. Since this level of catch may be incidental, it is unlikely that fishing behavior would change, and therefore overfished species impacts should be similar to No Action. The other option analyzed provides for landings that are higher than what are incidentally caught during the currently closed season. Therefore, fishing behavior may be more likely to change if this option is chosen (e.g., increased targeting) and catch of overfished species (e.g., yelloweye rockfish) may increase.

**Table 2. Proposed commercial fixed gear trip limits for north and south of 40°10' N. latitude by sector, under Option 1 for the currently closed season (December - April). The remaining trip limits (May - October) are status quo limits currently available during the open season. This table was excerpted from [Agenda Item F.7.a, Attachment 6, June 2014](#). See Table 6 for combined trip limits (“winter” and “summer” and changes regarding LE and OA South).**

Sector	Jan - Feb	Mar - Apr	May - Jun	Jul - Aug	Sep - Oct	Nov - Dec
LE North	200 lb/2 months		800 lb/ 2 months			400 lb 100 lb
LE South	200 lb/2 months		800 lb/ 2 months			400 lb 100 lb
OA North	100 lb/ month			400 lb/ month		100 lb
OA South	100 lb/ month			400 lb/ month		100 lb

A motion was made at the April 2014 Council meeting to task the GMT to complete an analysis that considers the following trip limit options for both the LE and OA non-trawl fixed-gear lingcod fishery sectors that examines a modified season structure. Table 3 trip limit options analyzed.

**Table 3. Lingcod commercial coastwide trip limits for the non-trawl fixed-gear fisheries, showing “summer” and “winter” lingcod alternatives.**

Proposed lingcod trip limits that apply to the area <b>NORTH</b> of 40°10' N. latitude with a year-long season structure						
LE	Jan/Feb	Mar/Apr	May/June	Jul/Aug	Sep/Oct	Nov/Dec
Option 2a	200 lb/2 mo	200 lb/2 mo	1,200 lb	1,200 lb	1,200 lb	600 lb Nov, 200 lb Dec
Option 2b	200 lb/2 mo	200 lb/2 mo	1,600 lb	1,600 lb	1,600 lb	800 lb Nov, 200 lb Dec
OA						
Option 2a	100 lb/mo	100 lb/mo	600 lb/month (100 lb Dec)			
Option 2b	100 lb/mo	100 lb/mo	800 lb/month (100 lb Dec)			

Proposed lingcod trip limits that apply to the area <b>SOUTH</b> of 40°10' N. latitude with a year-long season structure						
LE	Jan/Feb	Mar/Apr	May/June	Jul/Aug	Sep/Oct	Nov/Dec
Option 2a	200 lb/2 mo	Closed	800 lb	800 lb	800 lb	400 lb Nov, 200 lb Dec
Option 2b	200 lb/2 mo	Closed	800 lb	800 lb	800 lb	400 lb Nov, 200 lb Dec
OA						
Option 2a	100 lb/mo	Closed	400 lb/month (100 lb Dec)			
Option 2b	100 lb/mo	Closed	400 lb/month (100 lb Dec)			

The trip limits in Table 3 result in the following lingcod mortality estimates (Table 4) and the overfished species mortality (Table 5) for 2015 (under a P\*0.45 approach).

**Table 4. Lingcod coastwide commercial mortality estimates (mt) under Option 2a and Option 2b with the percent attainment of the non-trawl allocation.**

Limited entry + open access coastwide lingcod mortality estimates (mt) at p*=0.45			
Option	Estimated take (mt)	Non-trawl allocation	Percent of Allocation
2a	135.1	1,950.7	6.9%
2b	73.4	1,950.7	8.9%

Note: South of 40°10' N. latitude the fishery will continue to be closed. The non-trawl allocations are a combination of those for north and south of 40°10' N. latitude as presented in Agenda Item C.4.a Supplemental REVISED Attachment 2, April 2014.

**Table 5. Overfished species mortality estimates (mt) under Option 2a and Option 2b that reflect a coastwide season structure modification.**

	Coastwide estimated mortality (mt) of OFS under options with an expanded season structure	
	Option 2a	Option 2b
Bocaccio	0.4	0.4
Canary rockfish	6.7	6.8
Cowcod	0.0	0.0
Darkblotched rockfish	0.2	0.2
Yelloweye rockfish	1.2	1.3

**Recommendation:**

If the Council wants to increase lingcod trip limits during both the “summer” and “winter” seasons, then the GMT recommends the Council adopt Option 2a from Table 6, which increases lingcod trip limits for LE and OA, north and south of 40° 10’ N. latitude during “winter” and “summer” seasons. The GMT expects no change in fishing behavior or in catch of overfished species by allowing incidental catch of lingcod during the currently closed season (“winter”; December – April).

If the Council chooses to allow “winter” retention of lingcod, while retaining status quo “summer” trip limits, then the GMT recommends the trip limit structure shown in Table 5, with the exception of LE and OA south of 40° 10’ N. latitude, where lingcod retention would continue to be prohibited during March and April. This is because rockfish retention is prohibited during this period south of 40° 10’ N. latitude.