

GROUND FISH MANAGEMENT TEAM REPORT ON 2013-14 HARVEST
SPECIFICATIONS AND MANAGEMENT MEASURES, PART II

MANAGEMENT MEASURES

The Council adopted only a few new management measures for preliminary analysis in September. Based on Council guidance, the Groundfish Management Team (GMT) provided some additional information to assist the Council in the adoption of a preliminary range of management measures for more detailed analysis under Agenda Item A.9.b, GMT Report 2. A summary of the preliminary preferred management measures follows:

- Rockfish Conservation Area Boundary (RCA) points; these revisions may include but are not limited to:
 - Consider modest revision to a few points on the boundary line approximating the 150 fm depth contour off of Washington where it crosses the 200 fm line.
- Management measures to keep spiny dogfish and longnose skate mortalities within harvest specifications
- RCA adjustments for the Individual Fishing Quota (IFQ) Fisheries
- IFQ Fishery lingcod length restrictions
- Allow multiple fishing gears on a single trip in the IFQ fisheries
- Modify regulations to allow use of four-seam trawls shoreward of the RCA
- Clarify catch accounting under the limited entry and open access fisheries.

The National Marine Fisheries Service (NMFS) provided their advice relative to the preliminary list of management measure for 2013-2014 during the GMT meeting the week of October 3-7, their advice on whether the management measures should be analyzed as part of the 2013-2014 harvest specification and management measure process or through future rule makings is summarized in Agenda Item E.9.b, NMFS Report.

The following GMT report provides further analysis of the preliminary preferred management measures from September and comments on new measures brought forward this week. **The GMT requests guidance from the Council on the management measures to be analyzed over winter for 2013-2014.**

Longnose Skate and Spiny Dogfish

Total Mortality by Sector

Summaries of total mortality for spiny dogfish (2007-09) and longnose skate (2009) were provided previously under this agenda (Agenda Item E.9.b, GMT Report 2, November 2011; see Tables 5 and 6) and under Agenda E.4 for longnose skate (2009 and 2010; Agenda Item E.4.b, Supplemental GMT Report 3, November 2011).

We provide Table 1 to illustrate total mortality of spiny dogfish by sector for the years 2007-2010. These annual comparisons were included to evaluate annual variability and differences among sectors. Spiny dogfish were primarily caught by shoreside whiting trawl, non-nearshore fixed gear, and at-sea whiting fisheries. A large difference is apparent for non-nearshore fixed gear, where total mortality was 509 mt in 2007 but dropped to 332 mt in 2008. This reduction in total mortality was due to the loss of a spiny dogfish processor in northern Washington after the 2007 season. The reduction in processing capability also is responsible for a reduction in dogfish targeting after the 2007 season. We also point out that spiny dogfish total mortality for non-tribal catcher-processors was 489 mt in 2008, which is 5x – 10x higher than during the other years (Table 1).

Longnose skate (see [Agenda Item E4b, Supplemental GMT Report 3, November 2011](#)), were caught almost exclusively by the non-nearshore fixed gear fishery and the shoreside non-whiting trawl fishery. Only two years of data are available for this species because it was not sorted prior to 2009.

Table 1. Total mortality (mt) of spiny dogfish among sectors for 2007-2010. Data were taken from West Coast Groundfish Observer Program total mortality reports.

Sectors	Year			
	2007	2008	2009	2010
Shoreside non-whiting trawl	652.0	1023.0	665.5	520.1
Non-nearshore fixed gear	509.0	332.0	216.2	254.1
Nearshore fixed gear	0	1.0	0	0.1
Non-Tribal Shoreside Whiting	51.4	59.5	16.0	124.6
Non-Tribal Mothership	22.6	24.0	6.8	45.4
Non-Tribal Catcher-Processor	63.5	489.1	27.9	110.4
WA (Recreational)	0	0	0	0
OR (Recreational)	0	0	0.1	0.1
CA (Recreational)	5.0	3.0	4.9	1.6
TOTAL	1303.5	1931.6	937.5	1056.4

Management Measures

The GMT showed that both longnose skate and spiny dogfish may require more restrictive management measures to keep fishing mortality below their respective annual catch limits (ACLs) (Agenda Item E.9.b, GMT Report 2, November 2011). Many similarities between the

two species were described in that report, including that both species exhibit a wide depth and latitudinal distribution and both are largely bycatch species. Although both species are primarily incidentally caught while targeting other groundfish, both have been intermittently retained and sold. Spiny dogfish are, however, targeted by some vessels, and there has been an increase in landings of longnose skate since 2004 (Gertseva and Schirripa 2007; Bellman et al. 2010; Bellman et al. 2011). The 2009 and 2010 total catch of longnose skate (Bellman et al. 2010; Bellman et al. 2011) represent the 3rd and 2nd highest catches over the past 50 years (see Gertseva and Schirripa 2007).

We previously pointed out that longnose skate was removed from the Other Fish complex and has been managed with its own ACL since 2009, whereas spiny dogfish currently remains within the Other Fish complex (Agenda Item E.9.b, GMT Report 2, November 2011). The GMT noted that it may still be possible to manage catches of dogfish without its removal from the complex; however, fewer management options are available for that case.

In GMT Report 2 (under this agenda item), we suggested that longnose skate and spiny dogfish may be managed using time-area tools, such as trip limits. West Coast Groundfish Observer Program (WCGOP) and PacFIN data were used to evaluate potential effectiveness of these typical management measures (e.g., trip limits and RCA changes) and others to keep fishing mortality below ACLs.

The GMT report provides the following examples of potential management measures and data that may be used to control catches of spiny dogfish and longnose skate. This is not a complete analysis, but rather a display of data and management measures that may be available to keep the catch of these species below their ACLs.

Trip Limits

Trip limits may be used to effectively reduce or eliminate targeting of spiny dogfish, but may be less effective for reducing catches of longnose skate (which is generally not targeted). Spiny dogfish may be found in dense concentrations or schools, and certain vessels will pursue and catch these large concentrations. Individual catches of spiny dogfish reached nearly 5 mt per set for trawl and longline during 2009 and 2010; most sets yielded less than 0.5 mt (Figures 1 and 2). For observed sets where spiny dogfish were caught, fishermen recorded that they were targeting the species 32 percent of the time for fixed gear and ~0.05 percent for trawl (averages during 2002 – 2010 (WCGOP data). Even though, WCGOP data shows that only a few trawl vessels target this species, catches can be very high (a few trawl sets produced > 15 mt during the period 2002 – 2008). Hence, some level of trip limit could reduce these targeting events, and making catch mortality more representative of incidental, unavoidable catches while pursuing other targeted species (e.g., at the lower range of catch levels shown in Figures 1 and 2).

Longnose skate are not typically the primary target species for trawl or longline. Instead, this species is normally caught incidentally while targeting other species. Maximum catches of longnose skate per set were less than 2.5 mt (trawl) and less than 0.5 mt for fixed gear during 2009 and 2010 (Figures 1 and 2). Most sets produced less than 0.25 mt (trawl) and less than 0.1 mt (fixed gear). Nonetheless, even though fishermen do not solely target longnose skate, landings have increased in recent years to nearly all time high levels (see above) and increased

fishing in areas with relatively high concentrations could become more frequent. Hence, the effectiveness of trip limit management for reducing the catch of this species is uncertain; however, they could be set to prevent any new target fisheries from developing. The GMT notes that trip limits for this species may result in frequent discarding, because limits would have to be relatively low to produce a large impact (see Figures 1 and 2).

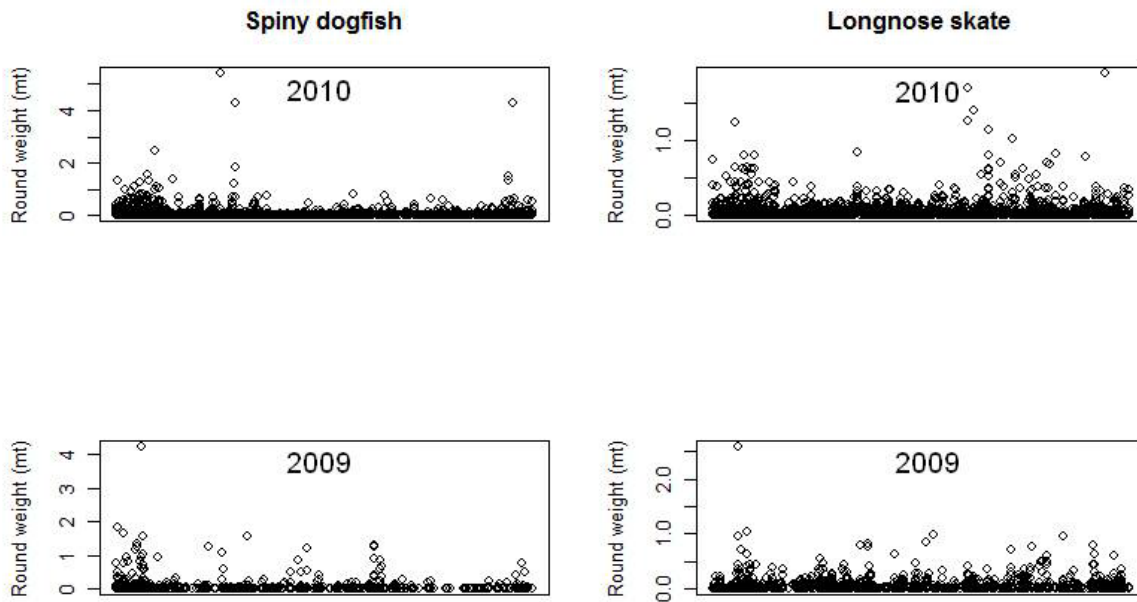


Figure 1. Spiny dogfish shark and longnose skate catch (mt) by tow for bottom trawl during 2009 and 2010. Only positive tows were included. Data were acquired from the WCGOP.

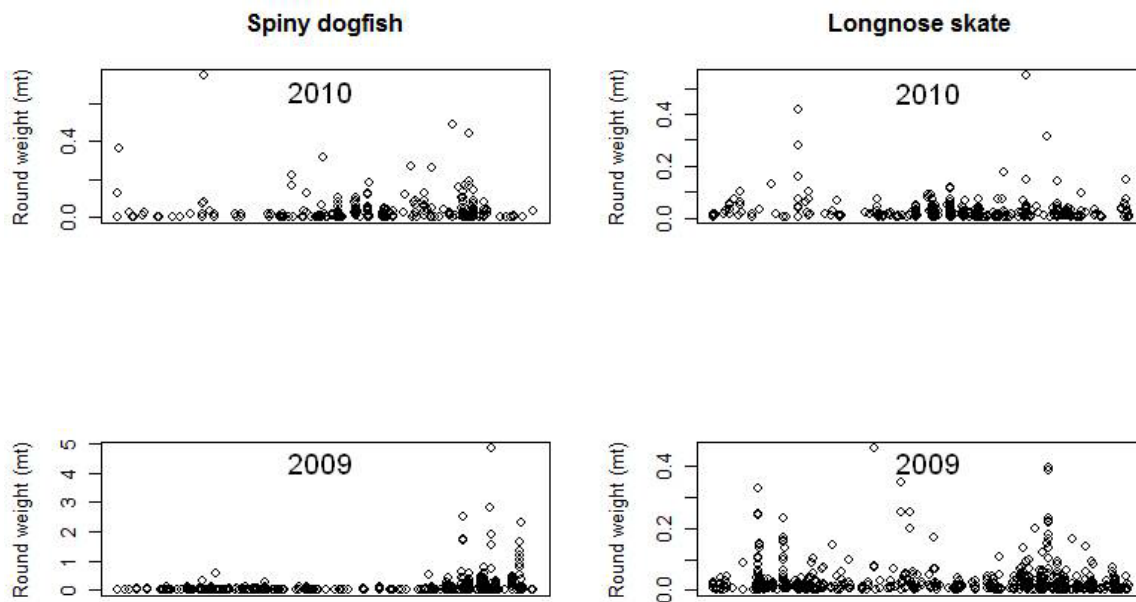


Figure 2. Spiny dogfish shark and longnose skate catch (mt) by set by fixed gear during 2009 and 2010. Only sets with spiny dogfish or longnose skate catch were included. Data were acquired from the WCGOP.

Depth Restrictions (e.g., RCAs)

WCGOP data demonstrate that both spiny dogfish and longnose skate are caught over a wide range of depths (0-50 fm to > 600 fm) and management areas by both trawl and fixed gear (Tables 1 and 2). Note that we only provided data for two management areas for these examples. Both species are caught coastwide.

Tables 1 and 2 show that longnose skate and spiny dogfish may be caught at very shallow depths. Highest trawl catches for spiny dogfish, for example, are shown at the shallowest depth strata (100 fm north of 40° 10' N. lat. and up to 150 fm south of 40° 10' N. lat). Hence, shoreward RCA lines would likely have to be moved to ~50 fm or shallower to effectively reduce catches of spiny dogfish. A similar situation may exist for longnose skate, where the highest catches by trawl between 45° 46' and 48° 10' N lat. were in the 50-100 fm depth strata.

At the deeper end of the spectrum, WCGOP data demonstrate that catches are highest to approximately 350 fm for both spiny dogfish and longnose skate (Tables 2 and 3). Catches may subsequently begin to drop at depths beyond 350 fm (Table 2). This wide depth distribution of trawl catches is demonstrated in Figure 3 for longnose skate, which shows that a seaward depth restriction of 250 fm would still leave large areas where longnose skate encounters would occur. In this case, the seaward depth restriction may have to be much deeper than 250 fm to effectively reduce catches of longnose skate.

These results suggest that significant reductions in catches of longnose skate and spiny dogfish using depth-based management may be possible but would likely result in large impacts to the fisheries and associated communities.

Table 2. WCGOP Observed of longnose skate (mt) by depth (fm) for fixed gear and trawl sets for 2002-2010. Catches are shown for two areas. Remaining areas along the U.S. west coast can be provided at request.

FIXED GEAR			TRAWL	
Area 2	Depth (fm)	Catch (mt)	Depth (fm)	Catch (mt)
48°10' to 45°46'			0-50	5.3
	50-100		50-100	124.6
	100-150	16.8	100-150	23.5
	150-200	21.4	150-200	7.9
	200-250	14.1	200-250	42.9
	250-300	5.7	250-300	45.1
	300-350	1.8	300-350	22.6
	350-400	0.3	350-400	5.7
	400+	0.2	400-450	1.3
			450-500	0.1
			500+	0.1
Area 3	Depth (fm)	Catch (mt)	Depth (fm)	Catch (mt)
45°46' to 40°10'			0-100	50.9
	0-150	7.2	100-150	21.5
	150-200	16.2	150-200	2.5
	200-250	12.9	200-250	83.0
	250-300	4.7	250-300	92.0
	300+	0.8	300-350	37.7
			350-400	5.1
			400-450	1.9
			450-500	0.1
			500-550	0.1
			550-600	0.1
			600	0.0

Table 3. WCGOP Observed of spiny dogfish shark (mt) by depth (fm) for fixed gear and trawl sets for 2002-2010. Catches are shown for two areas. Remaining areas along the U.S. west coast can be provided at request.

FIXED GEAR			TRAWL	
Area 2	Depth (fm)	Catch (mt)	Depth (fm)	Catch (mt)
48°10' to 45°46'			0-50	6.7
	50-100		50-100	307.8
	100-150	120.1	100-150	108.5
	150-200	91.0	150-200	28.2
	200-250	50.0	200-250	141.3
	250-300	30.5	250-300	55.5
	300-350	3.1	300-350	25.2
	350-400	2.2	350-400	4.7
	400+	12.1	400-450	0.3
			450-500	0.1
			500+	0.1
Area 3	Depth (fm)	Catch (mt)	Depth (fm)	Catch (mt)
45°46' to 40°10'			0-100	0.1
	0-150	0.1	100-150	20.9
	150-200	8.5	150-200	18.9
	200-250	20.0	200-250	11.5
	250-300	10.4	250-300	134.0
	300+	2.1	300-350	34.6
			350-400	8.2
			400-450	0.4
			450-500	0.2
			500-550	0.1
			550-500	0.0
			600	0.0

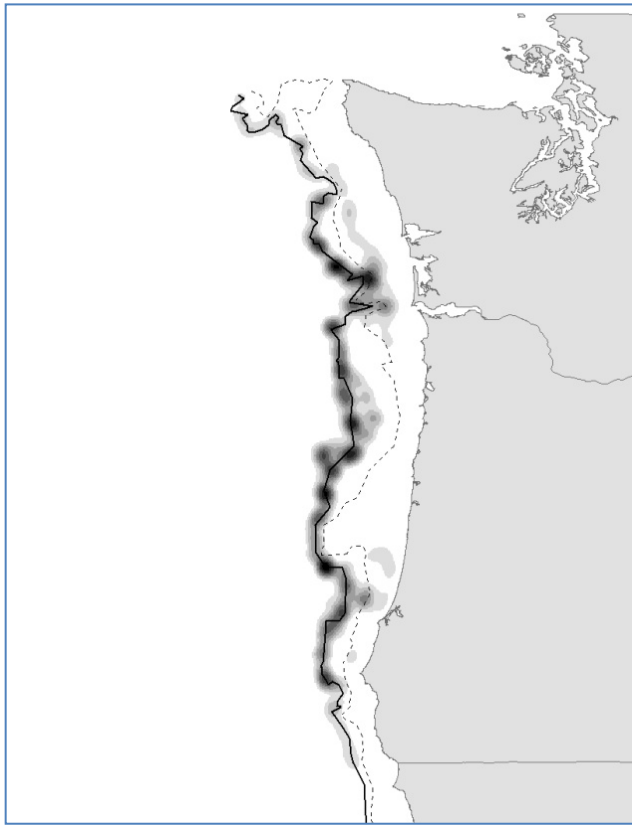


Figure 3. Distribution of bottom trawl tows (shaded areas) where longnose skate were retained and recorded in logbooks during 2010. Darker shading represents higher number of tows with longnose skate. Dashed line = 75 fm line; Solid line = 250 fm line. RCA lines were included for reference only. Data was acquired from the PacFIN data base. Only hauls where a haul weight was recorded are included.

Establishing IFQ

Establishing longnose skate and spiny dog as IFQ species (i.e., quota share and quota pounds (QP) would be distributed) is another option to increase the probability of keeping catches below the ACL. Individual accountability acts as a significant deterrent because of the provision requiring vessels to remain off water until deficits are cleared. The restrictions associated with QP species (individual accountability) may therefore help to ensure that ACLs are not exceeded, and may circumvent the need for other management measures, such as RCAs.

There are additional reasons that making longnose skate and spiny dogfish IFQ species would be effective. These species have very high discard rates, and IFQ provides direct, real-time catch accounting of discard. Over 2008-2010, 92 percent of spiny dogfish catch using trawl gear was discarded, and 70 percent of longnose skate catch was discarded. Over the same time period, 88 percent of longnose skate and 79 percent of spiny dogfish was caught with trawl gear. Together with permit-level individual accountability, IFQ is a potential control measure for these species. Additionally, managing these species with IFQ would avoid the ineffective nature of trip limits on discard species, and would avoid the undue restrictions to the fleet on depth which would be needed to manage either species using depth based management (RCA).

The GMT points out that spiny dogfish would need to be removed from the Other Fish complex before applying this measure.

Other Potential Management Measures

Other management measures may be available to reduce fishing mortality for dogfish and longnose skate if necessary. Both species may exhibit some level of survival after discard (Agenda Item E.4.b, Supplemental GMT Report 3, November 2011). Hence, if handled properly (e.g., careful release in longline fisheries; short deck times on trawl vessels), then fishing mortality may be reduced. Gear modifications and requirements is another option to reduce fishing mortality, especially for longnose skate. For example, flexible grates and escape panels have been shown to effectively allow escapement of skate at fishing depth while retaining most target species that enter the net. These types of potential management measures could be further explored. We are uncertain whether we have the information to quantify the potential savings of these types of measures.

Catch Accounting between the Limited Entry and Open Access Sectors

The GMT has previously expressed the importance of clarifying the regulations for catch accounting between the limited entry and open access sectors due to the potential impacts on current models, especially sablefish. It is the GMT's understanding that this issue is simply a matter of clarifying the regulations and Fishery Management Plan to be consistent with Council action. If upon further investigation this issue is more complex than originally thought and cannot be corrected in the biennial spex, the GMT will continue to work with Council and NWR staff to implement Council intent.

New requests for management measures

Under written public comments, two new requests were submitted for consideration in 2013-14 – one to modify RCA way points in southern California and another to modify the lingcod closure for nearshore fishery in Oregon. RCA modifications for other areas of the coast are currently being considered for 2013-14 and this new request can likely be accommodated and included with the others.

Current commercial lingcod regulations for the limited entry and open access fixed gear nearshore fisheries north and south of 40°10' N. latitude include a closure for the months of December through April. The closure was originally implemented to protect the stock when it was declared overfished. The 2009 stock assessment indicated that the stock was rebuilt coastwide and as a result, the Council did give some consideration to removing the closure for both Oregon and California in 2011-12 (2011-12 FEIS). This management measure was ultimately “considered but rejected” due to overfished species concerns, primarily yelloweye. At that time, the GMT concluded that if lingcod harvest was not increased, but the closure was modified or removed, the trip limits would likely have to be reduced year round to the extent that they would effectively just be incidental trip limits. In other words, the same amount of harvest could be taken but spread it out over 11 months, instead of 6. The GMT suggested that this measure may have required reducing trip limits drastically.

Circumstances are different during this biennial cycle relative to that of the 2011-12 cycle. During the 2011-12 analysis, the Council was facing the possibility of a 13 mt ACL for yelloweye rockfish, whereas the Council selected a PPA of 18 mt for the 2013-14 cycle during Agenda Item E. 4 at this November meeting. On the other hand, the Council reaffirmed their commitment to keeping management measures restricted for this 2013-14 cycle to ensure a January 1, 2013 start date. The current (2012) ACL for yelloweye rockfish is 17 mt.

The GMT seeks guidance from the Council whether this management measure should be analyzed by the GMT for 2013-14.

Lingcod North and South of 42° N latitude

Under Agenda Item E.7.d the Council recommended that NMFS address concerns heard under public testimony on the subarea allocations of lingcod north and south of 42° N latitude. The general hope of the Council is that NMFS will be able to resolve this issue in time for the beginning of the 2012 fishery. Additionally the Council will need to decide how to handle this issue for 2013-2014. Some ideas that have been expressed to address this issue are:

1. Adopt a coastwide ACL for lingcod, rather than the current north and south of 42° N latitude split, and adjust the ACL accordingly.
2. Adjust the north/south split from 42° N latitude to 40° 10' N latitude. This would require coordination with the stock assessor to determine the OFL and ABC for each area. These would then be used to determine the new area specific ACLs.
3. Implement a line at 42° N latitude from shore to the shoreward RCA boundary line and then seaward of the RCA there would be no subarea restrictions for lingcod.

Additionally, accumulation limits for lingcod may need to be addressed. The GMT has not had time to analyze or discuss these items and therefore have no recommendations at this time. We seek guidance from the Council on which, if any, of these management measures should be analyzed for 2013-14.

Recreational Management Measures

In keeping with the Council's intent of limiting the scope and number of changes to status quo harvest specifications and management measures during the 2013-2014 cycle, neither Washington or Oregon are proposing any new management measures to be analyzed for the recreational fisheries. Status quo management measures (bag limits, depth restrictions, etc.) will provide the basis for keeping recreational impacts of overfished species within sector specific harvest guidelines for 2013-2014.

GMT Recommendations:

Consider whether to analyze the following management measures during the 2013-2014 harvest specification and management measure cycle:

1. Revise latitude and longitude coordinates that are used to define the rockfish conservation area (RCA) boundaries as necessary for trawl and fixed gear.
2. Rockfish Conservation Area Boundary (RCA) adjustments for the IFQ fisheries.
3. IFQ fishery lingcod length restrictions.
4. Allow multiple fishing gears on a single trip under the IFQ program.

5. Modify regulations to allow uses for four-seam trawls shoreward of the RCA.
6. Management measures to keep spiny dogfish and longnose skate mortalities within harvest specifications including; trip limits, depth restrictions, establishing longnose skate and spiny dogfish as IFQ species, and gear modifications to reduce bycatch.
7. Clarify catch accounting under the limited entry and open access fisheries.
8. RCA modifications in California and the lingcod closure in Oregon as requested in Agenda Item E.9.c Public Comment.
9. Lingcod quota pound allocations north and south of 42° north latitude.

PFMC
11/6/11