GROUNDFISH MANAGEMENT TEAM REPORT ON CONSIDERATION OF INSEASON ADJUSTMENTS

Action items:

- Proposed trip limit increases for the limited entry and open access fixed-gear sablefish DTL sectors north of 36° N. latitude for 2014.
- Request for increased bimonthly trip limits for shallow and deeper nearshore species in the LE fixed gear and OA, south of 40°10' N. latitude.
- Proposed trip limit for the limited entry and open access lingcod fishery for December 2014, south of 42° N. latitude.

Informational items:

- Research catch update
- Overfished Species Scorecard update

Appendix A: Fixed Gear Sablefish Daily Trip Limit (DTL) Forecast Assumptions and Uncertainty

The Groundfish Management Team (GMT) considered the most recent information on the status of ongoing fisheries, research, and requests from industry and provides the following recommendations for 2014 inseason adjustments.

The GMT also received guidance from the National Marine Fisheries Service (NMFS) West Coast Region (WCR) regarding timing of implementation of inseason recommendations from this meeting. NMFS anticipates implementing routine inseason adjustments to fishery management measures by August 1, 2014.

1. ACTION ITEMS

1.1. Fixed gear sablefish, daily trip limit fisheries in 2014

Here we describe inseason considerations for 2014 in the four fixed gear daily trip limit (DTL) fisheries, including both limited entry (LE) and open access (OA), north and south of 36° N. latitude. We refer to them as follows: LE North, LE South, OA North, and OA South.

Projection models have been updated with a year of new data (2013), re-specified accordingly, and new catch information about progress through the first part of 2014 is available from the Quota Species Monitoring (QSM) Best Estimate Report (BER), from the Pacific Fisheries Information Network (PacFIN).

1.1.1. Current status and alternatives

Current projections under status quo and action alternatives are shown in Table 1. Alternative trip limits are shown in Table 2.

Under the action alternatives, we maintained the same ratio of weekly to bimonthly trip limits as status quo for each fishery, since there were no industry requests to diverge from them. The exception is for Alternative 3 in the OA North, where the bimonthly limit is much higher than status quo and it may require up to three trips to attain the bimonthly trip limit.

Table 1. Forecasted landings (mt) and attainment (percent) under the alternatives, for the fixed gear sablefish DTL fisheries in 2014. Landings projections are bracketed by a range of three levels of assumed ex-vessel price curves in the LE North fishery (see Appendix A. for description).

	LE N, by price assumption						
2014 No Action	**Low**	**Med**	**High**	**OA N**	**LE S**	**OA S**	**South sum**
Landing target	**214**	**214**	**214**	352	483	392	875.0
Projected landings	182.1	187.2	192.3	156.8	516.5	104.4	620.9
Difference	31.9	26.8	21.7	195.2	-33.5	287.6	254.1
Percent attainment	85%	88%	90%	45%	107%	27%	71%
2014 Alternative 1							
Landing target	214	214	214	352	-	-	-
Projected landings	189.0	194.3	199.6	233.2	-	-	-
Difference	25.0	19.7	14.4	118.8	-	-	-
Percent attainment	88%	91%	93%	66%	-	-	-
2014 Alternative 2							
Landing target	214	214	214	352	-	-	-
Projected landings	198.7	204.4	210.1	288.1	-	-	-
Difference	15.3	9.6	3.9	63.9	-	-	-
Percent attainment	93%	96%	98%	82%	-	-	-
2014 Alternative 3							
Landing target	-	-	-	352	-	-	-
Projected landings	-	-	-	338.4	-	-	-
Difference	-	-	-	13.6	-	-	-
Percent attainment	-	-	-	96%	-	-	-

Table 2. Trip limits (pounds/vessel/unit time) under the alternatives for the fixed gear sablefish DTL fisheries in 2014. Potential action alternative trip limits are in bold font. For the OA North, the No Action Alternative, Alternative 1, and Alternative 2 are structured so that it is possible to achieve the bimonthly limit in two weeks. For Alternative 3, it would take three weeks.

Fleet/ area	period	2014 No action trip limits			2014 Alt. 1 trip limits			2014 Alt. 2 trip limits			2014 Alt. 3 trip limits		
		bimo	week	day	bimo	week	day	bimo	week	day	bimo	week	day
LE N	1-3	2,850	950	-	2,850	950	-	2,850	950	-	2,850	950	NA
	4-6				**3,000**	**1,000**	-	**3,200**	**1,075**	-	-	-	-
OA N	1-3	1,600	800	300	1,600	800	300	1,600	800	300	1,600	800	300
	4-6				**3,200**	**1,600**	**350**	**4,400**	**2,200**	**375**	**5,400**	**1,800**	**400**
LE S	1-6	-	2,000	-	-	-	-	-	-	-	-	-	-
OA S	1-6	3,200	1,600	320	-	-	-	-	-	-	-	-	-

LE North

Projected attainment in the LE North fishery under No Action during 2014 ranges between 85 and 90 percent of the target, depending upon assumptions of ex-vessel price (Table 1 and Table 2). Projected attainment under Alternative 1 ranges between 88 and 93 percent, and for Alternative 2, it ranges between 93 and 98 percent.

OA North

Projected attainment under No Action in the OA North fishery during 2014 is for 45 percent of the target. Projected attainment under the action alternatives ranges between 66 percent for Alternative 1, 82 percent for Alternative 2, and 96 percent for Alternative 3 (Table 1 and Table 2).

LE South

The status quo LE South projection using the best currently available information is for 107 percent attainment (Table 1), thus no alternatives trip limits are presented. This would be similar to the attainment level during 2013 of 104 percent. However, industry reports of low effort during Period 2 (March and April) due to bad weather suggest that actual attainment may turn out to be somewhat lower than projected. Accurate QSM estimates of sablefish landings in the Conception International North Pacific Fisheries Commission (INPFC) area during Period 2 are not currently available, so it is difficult to check these reports. The OA South fishery is currently projected to have low attainment, and would allow ample room for the small predicted overage in the LE South fishery, should it occur.

OA South

Projected attainment in the OA South fishery in 2014 is low (27 percent, Table 1), and attainment has been low in 2012 and 2013 (Appendix A.). The GMT believes there is sufficient opportunity under the current OA South trip limits (320 pounds daily, 1,600 pounds weekly, and 3,200 pounds bimonthly, Table 2), judging by comparison over the historical time series, and no requests have been made by industry for this fishery. Thus, we are not proposing action alternatives for the OA South at this time.

Appendix A. gives information on the current annual changes to model specifications, coinciding with the addition of new input data each Spring, as soon as they become final in PacFIN. Details about trending fishery behavior in the OA North fishery, and our measures to compensate for it in forecasts is also described in the appendix.

1.2. Limited entry and open access fixed gear - shallow and deeper nearshore rockfish trip limits and a December trip limit for lingcod

The GMT reviewed a request from industry asking for increased bimonthly trip limits for shallow and deeper nearshore species in the limited entry fixed gear and open access fisheries south of 40°10' N. latitude for the remainder of this year (Agenda Item F.4.c, Public Comment)). The request is to increase the current trip limit amounts from 900 pounds per two months (July-August) and 800 pounds per two months (Sept-Oct) to 1,000 pounds per two months. There was also a request for a 400 pound trip limit for the lingcod limited entry fixed gear and open access fisheries to be implemented for December for south of 42° N. latitude. Lingcod retention is currently prohibited from December – April. For the 2015-2016 cycle, the GMT provided an analysis which could provide for lingcod retention, beginning in 2015 (See Agenda Item F.7.a, Supplemental Attachment 10, June 2014).

The Council has supported trip limit increases for the nearshore fishery in the past. For example, the most recent increase took place last year when the trip limit for period 6 trip limit was increased to 1,000 pounds.

In considering these requests, the GMT evaluated the possible mortality increases to overfished species (OFS), specifically canary and yelloweye rockfish, even though no formal analysis was completed due to the lack of time. If the Council chooses, the GMT could conduct an analysis in time for the September Council meeting for the nearshore species trip limit request. However, we provide the following information to assist with this decision. The 2014 directed open access commercial nearshore fishery canary rockfish allocation is 6.4 mt with a projected mortality of 6.5 mt (Table 3). Any trip limit increase in the nearshore fishery south of 40°10' N. latitude would likely add to the existing projected mortality amount. For yelloweye rockfish, the directed open access allocation (coastwide) is 1.2 mt with a projected mortality of 1.1 mt. While the projected mortality is 0.1 mt less than the allocation amount, if one considers the additional opportunity to take lingcod in December (plus any additional take of nearshore rockfishes), it is possible that the 1.2 mt allocation may be exceeded (Table 3). This is because lingcod landings made with nearshore rockfish landings are closely associated with the constraining canary and yelloweye rockfish mortality estimates and are factored into the nearshore bycatch model that estimates OFS mortality in the nearshore fishery. Regarding the request to open the lingcod closed season in December, it is the GMT's understanding that this action is not yet considered routine and cannot be done as an inseason action after a single meeting and without a notice and comment rulemaking.

2. INFORMATIONAL ITEMS

2.1. Research

The International Pacific Halibut Commission (IPHC) is just beginning their annual set-line survey for Pacific halibut. Therefore, there are no updates to the IPHC research catches of yelloweye rockfish at this time. The GMT was informed that the NMFS trawl survey has encountered one

tow of approximately 1.5 mt of canary rockfish. Through one out of five legs in the May-July period, the survey has captured a total of 2.2 mt of canary rockfish. The scorecard currently has 4.5 mt of canary rockfish set-aside for research, which was based on recent average catches. There is also currently a residual of 21.3 mt of canary rockfish in the scorecard (Table **3**). The GMT anticipates receiving further updates on these research projects at the September meeting.

2.2. Scorecard Update

The scorecard has been updated to reflect changes to the Tribal set-asides, based on the 2014 Pacific whiting total allowable catch (TAC; Table 3). Canary and darkblotched rockfish, and POP estimates are based on a 5-year weighted averaged bycatch rate applied to the whiting allocation which was recently codified in the Final Rule (79FR27198). Bycatch projections for canary rockfish went from 10.1 mt to 9.2 mt, darkblotched rockfish went from 0.4 mt to 0.2 mt, and POP went from 14.8 mt to 7.4 mt. There are no other updates to the scorecard at this time.

GMT Recommendations:

1. **Increase fixed gear sablefish DTL trip limits for limited entry north of 36° N lat. in 2014 in periods 4 through 6, according to the Council's risk tolerance.**

2. **Increase fixed gear sablefish trip limits for open access north of 36° N lat. in 2014 in periods 4 through 6, according to the Council's risk tolerance.**

Table 3 Scorecard for the beginning of 2014. Allocations[a] and projected mortality impacts (mt) of overfished groundfish species for 2014.

Fishery	Bocaccio b/		Canary		Cowcod b/		Dkbl		Petrale		POP		Yelloweye	
Date: 6 June 2014	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts	Allocation a/	Projected Impacts
Off the Top Deductions	8.4	9.3	17.5	17.2	0.1	0.2	20.8	17.5	234.0	234.0	16.5	13.2	5.8	5.8
EFPc/	6.0	6.0	1.5	1.5	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Research d/	1.7	2.6	4.5	4.5	0.1	0.2	2.1	2.1	11.6	11.6	5.2	5.2	3.3	3.3
Incidental OA e/	0.7	0.7	2.0	2.0	--	--	18.4	15.0	2.4	2.4	0.4	0.6	0.2	0.2
Tribal f/			9.5	**9.2**			0.1	**0.2**	220.0	220.0	10.9	**7.4**	2.3	2.3
Trawl Allocations	79.0	79.0	54.1	54.1	1.0	1.0	293.7	293.7	2,383.0	2,383.0	129.7	129.7	1.0	1.0
-SB Trawl	79.0	79.0	41.1	41.1	1.0	1.0	**278.4**	278.4	2,378.0	2,378.0	112.3	112.3	1.0	1.0
-At-Sea Trawl			13.0	13.0			15.4	15.4	5.0	5.0	17.4	17.4		
a) At-sea whiting MS			5.4	5.4			**6.3**	6.3			7.2	7.2		
b) At-sea whiting CP			7.6	7.6			9.0	9.0			10.2	10.2		
Non-Trawl Allocation	249.6	125.4	47.4	26.4	1.9	0.8	**15.5**	4.5	35.0	2.2	**6.8**	0.2	11.2	10.3
Non-Nearshore	76.2		3.7										1.1	
LE FG				0.8				3.6				0.2		0.4
OA FG				0.1				0.7				0.0		0.0
Directed OA: Nearshore	0.9	0.4	6.4	6.5		0.0		0.2					1.2	1.1
Recreational Groundfish														
WA			3.2	0.9				--		--		--	2.9	2.9
OR			11.1	4.7				--		--		--	2.6	2.5
CA	172.5	125.0	23.0	13.4		0.8		--		--		--	3.4	3.4
TOTAL	337.0	213.7	119.0	**97.7**	3.0	2.1	330.0	**315.7**	2,652.0	2,619.2	153.0	**143.1**	18.0	17.1
2014 Harvest Specification	**337**	**337**	**119**	**119**	**3.0**	**3.0**	**330**	**330**	**2,652**	**2,652**	**153**	**153**	**18**	18
Difference	0.0	123.3	0.0	21.3	0.0	0.9	0.0	14.3	0.0	32.8	0.0	9.9	0.0	0.9
Percent of ACL	100.0%	63.4%	100.0%	82.1%	100.0%	68.7%	100.0%	95.7%	100.0%	98.8%	100.0%	93.5%	100.0%	95.1%

Key		
		= not applicable
	--	= trace, less than 0.1 mt
		= Fixed Values
		= off the top deductions

a/ Formal allocations are represented in the black shaded cells and are specified in regulation in Tables 1b and 1e. The other values in the allocation columns are 1) off the top deductions, 2) set asides from the trawl allocation (at-sea petrale only) 3) ad-hoc allocations recommended in the 2013-14 EIS process, 4) HG for the recreational fisheries for canary and YE.

b/ South of 40°10' N. lat.

c/ EFPs are amounts set aside to accommodate anticipated applications. Values in this table represent the estimates from the 13-14 biennial cycle, which are currently specified in regulation.

d/ Includes NMFS trawl shelf-slope surveys, the IPHC halibut survey, and expected impacts from SRPs and LOAs.

e/ The GMT's best estimate of impacts as analyzed in the 2013-2014 Environmental Impact Statement (Appendix B), which are currently specified in regulation.

f/ Tribal values in the allocation column represent the the values in regulation. Projected impacts are the tribes best estimate of catch.

APPENDIX A. FIXED GEAR SABLEFISH DAILY TRIP LIMIT (DTL) FORECAST ASSUMPTIONS AND UNCERTAINTY

A.1. LE North

Ex-vessel price is one predictor in the current model (adjusted for inflation) and uncertainty in the landings forecasts are expressed using a range of imputed price curves during 2014 (**Figure A.1**). The current 2014 projections for the LE North fishery assume a seasonal ex-vessel price curve of the same shape as 2013, but is inflated by 7 percent throughout 2014 (the "mid" line in **Figure A.1**). This assumption is based on differences in price between 2013 and 2014 over the first four months of available data. The high curve represents double the average increase in price seen so far in 2014, compared to 2013 (seven percent higher than the "mid" curve, and 14 percent higher than 2013, the "low" curve), while the low curve represents prices instead falling by the same amount that they have risen (7 percent lower than the "mid" curve for periods 3 through 6 of 2014, and equal to 2013 levels).

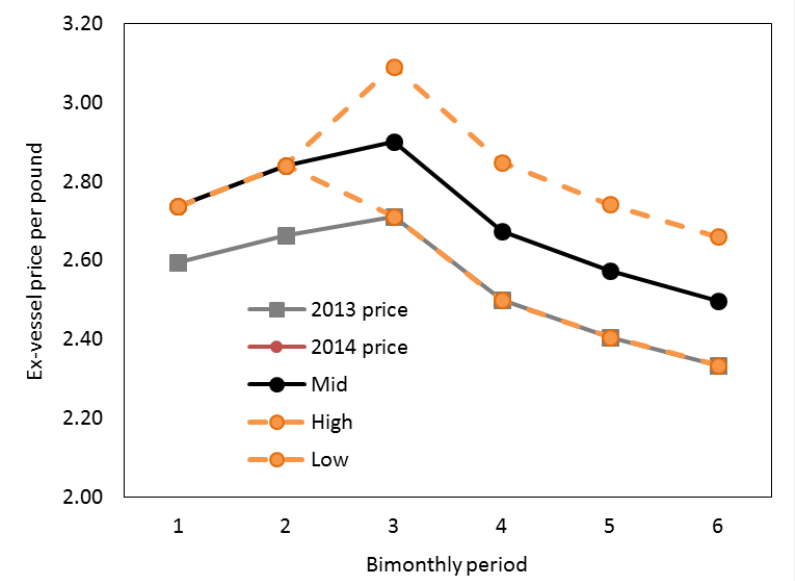

Figure A.1. Ex-vessel price structure assumed for the LE North DTL fishery inseason forecasts in 2014. The solid black line represents the middle assumed price curve for 2014. Period 1 and 2 (January-April) 2014 estimates were queried from PacFIN; estimates for periods 3 through 6 of 2014 (May through December) were derived in relation to 2013 prices and early differences between those from 2014. See text for details. Dashed orange lines are high and low assumptions. The solid grey line (square markers) represents 2013 prices, and is equal to the low price assumption for 2014.

Current fit of predicted to actual landings in the LE North fishery can be expressed as the percent of variation in actual landings explained by predicted landings, with an R^2 value of 0.94 (Figure A.2). Attainment of the landing target in the LE North over the past three years since intersector allocation has ranged from 159 percent in 2011, to 91 percent in 2012, and 97 percent in 2013 (Table A1). The overage in 2011 was due to erroneous input data in PacFIN, which has since been corrected (see Agenda Item E.5.b, Supplemental GMT Report, June 2011 PFMC meeting for description).

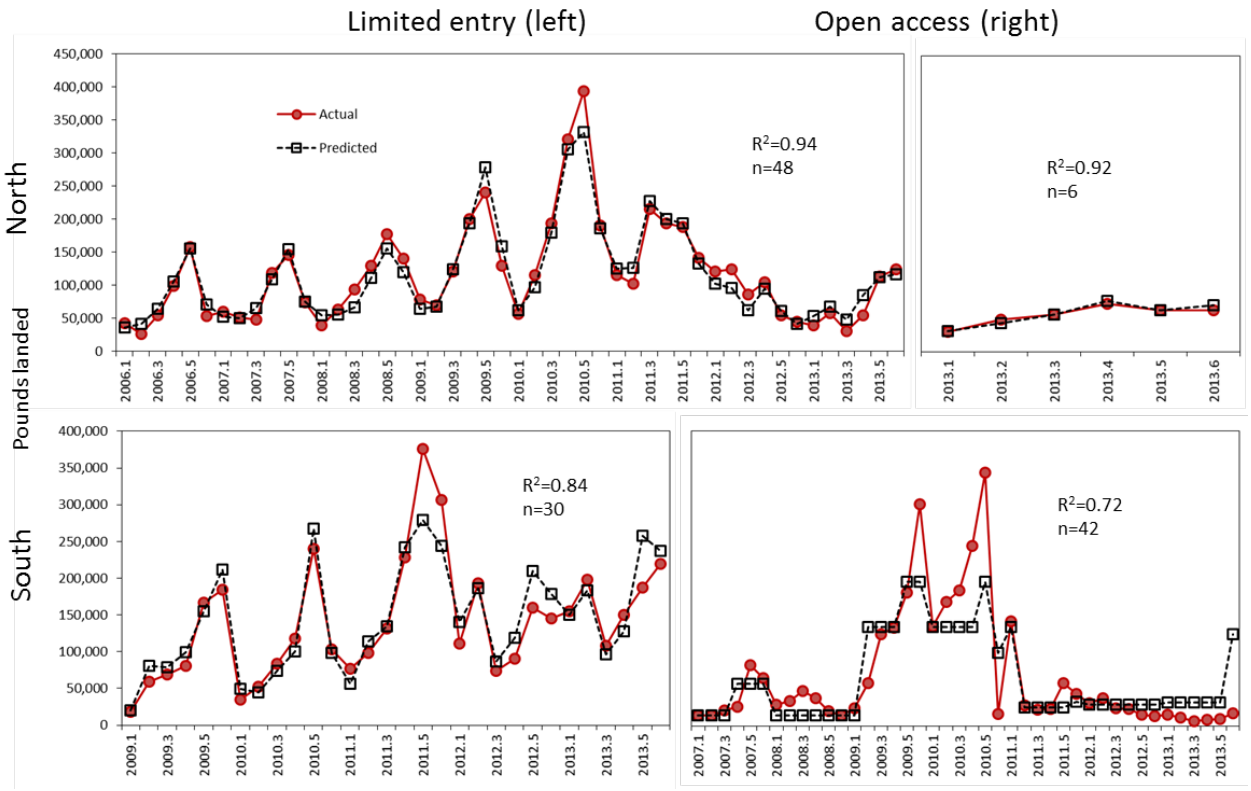

Figure A.2. Paneled time series charts showing current fits of predicted to actual landings in the four fixed gear, sablefish DTL fisheries, north and south of 36 degrees N. latitude, over the time series of model input data. The red solid line shows actual landings, and the black dashed line shows predicted landings. The R^2 value in each panel quantifies fit as the percent of variation in actual landings that is explained by predicted landings; "n" is the number of bimonthly periods used in each case. Note that including more than only the most recent year in the OA North model led to substantial landings overpredictions.

A.2. OA North

Attainment has been low in this fishery over the past two years (Table A.1., Figure A.3). With the addition of 2013 data, it appears that participation has been falling during 2012 and 2013, and a trend of upwardly biased predicted landings has emerged as a result. According to the current data, the average number of vessels landing declined to 48 percent of historical levels through 2013 (Table A.2).

Since the linear model fits to an average relationship over the time series, this model is not particularly adept at predicting participation and thus fleet catch when they are far from the average over the input time series, as in 2012 and 2013.

In order to increase accuracy of 2014 forecasts we've elected to use only the most recent year's data (2013) for the current model run (Figure A.2). Using additional years produced substantial over-predictions for the most recent year, 2013 as well as 2012 (Figure 4A). Fishery behavior in the current year tends to most closely resemble that of the previous year, so we assigned priority to fit 2013 data. Down-weighting older data was tried before removing them, but the degree of

down-weighting necessary to stop over-prediction for the most recent year (2013) was enough that older data were finally removed from the model, resulting in better fit (Figure A.2).

The current version of the model predicts landings more accurately and without apparent bias, both for 2013 (R^2=0.92, predicted vs actual) and so far in 2014; within 5 percent of the QSM estimate for periods 1 and 2. Since the short range of the data in the model (six bimonthly periods from 2013) does not include the higher trip limits presented in the alternatives; we are extrapolating to produce alternative trip limits and caution should be exercised in choosing among them. Trip limits could be revisited as early as September if necessary.

Table A.1. Fishery catch and attainment in 2011, 2012 and 2013 in the four sablefish DTL fisheries, sorted by area, fleet and then year, according to current estimates in PacFIN. These data show continuing high attainment in the limited entry, and a trend of decreasing attainment in the open access DTL fisheries. Also see Figure A.3.

Year	Fleet	Area	Pounds	mt	Target	Attainment
2011	LE	North	956,547	433.9	273	159%
2012	LE	North	533,226	241.9	265	91%
2013	LE	North	422,762	191.8	198	97%
2011	OA	North	953,795	432.6	433	100%
2012	OA	North	591,381	268.2	419	64%
2013	OA	North	334,030	151.5	291	52%
2011	LE	South	1,217,466	552.2	393	141%
2012	LE	South	774,357	351.2	378	93%
2013	LE	South	1,020,894	463.1	446	104%
2011	OA	South	356,121	161.5	319	51%
2012	OA	South	161,788	73.4	309	24%
2013	OA	South	76,139	34.5	362	10%
2011	Sum	South	1,573,587	714	712	100%
2012	Sum	South	936,145	425	687	62%
2013	Sum	South	1,097,033	498	808	62%

Under the action alternatives, trip limits would need to be higher in the OA North than the LE North, to enable sufficient effort and high attainment for the rest of the year. The harvest guideline is substantially (more than 50 percent) higher in the OA North than the LE North. Substantially higher trip limits for open access may encourage some migration of effort, but since both fisheries fall under the northern annual catch limit (ACL), this does not appear to be a critical issue. The OA North fishery also has a daily limit, while the LE does not. The OA North limits have been higher than the LE North during four different bimonthly periods since 2004; two during 2005 and two during 2012. We have used similar limits to those presented in the alternatives before, at the end of the year in 2005 and 2010 to boost attainment at the end of the year.

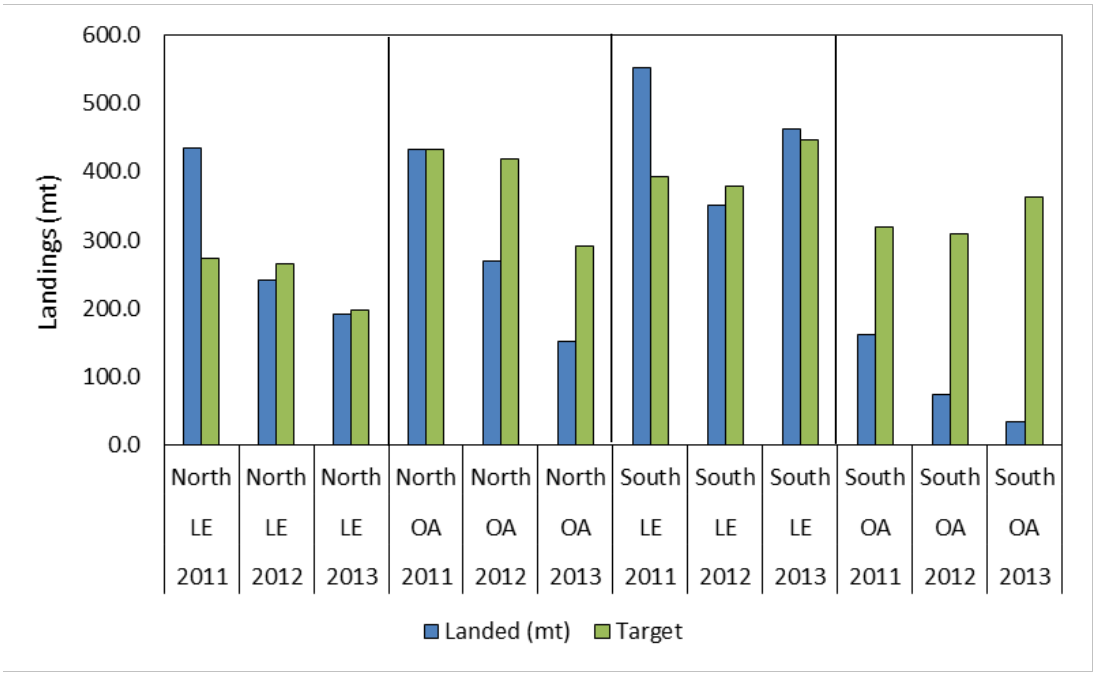

Figure A.3. Fishery landings and attainment in 2011, 2012 and 2013 in the four sablefish DTL fisheries, sorted by area, fleet and then year, according to current estimates in PacFIN. The plot illustrates continuing high attainment in the limited entry, and a trend of decreasing attainment in the open access DTL fisheries (values in Table 3).

Note that starting in 2014, sablefish catch north of 36° N. latitude in non-groundfish fisheries (e.g. the incidental open access fisheries) is no longer removed from the OA allocation pre-season. Removing this amount preseason was an error which resulted in double counting since the appropriate catch accounting rules for non-groundfish fisheries are applied inseason. That is, the inseason process debits catch by LE vessel against LE DTL allocation and catch by OA vessel against OA DTL allocation, consistent with Amendment 6 to the Groundfish Fishery Management Plan (FMP). There's no need for a preseason adjustment. We have accounted for projected incidental open access catch of sablefish within the projection for the OA North DTL values in Table 1.

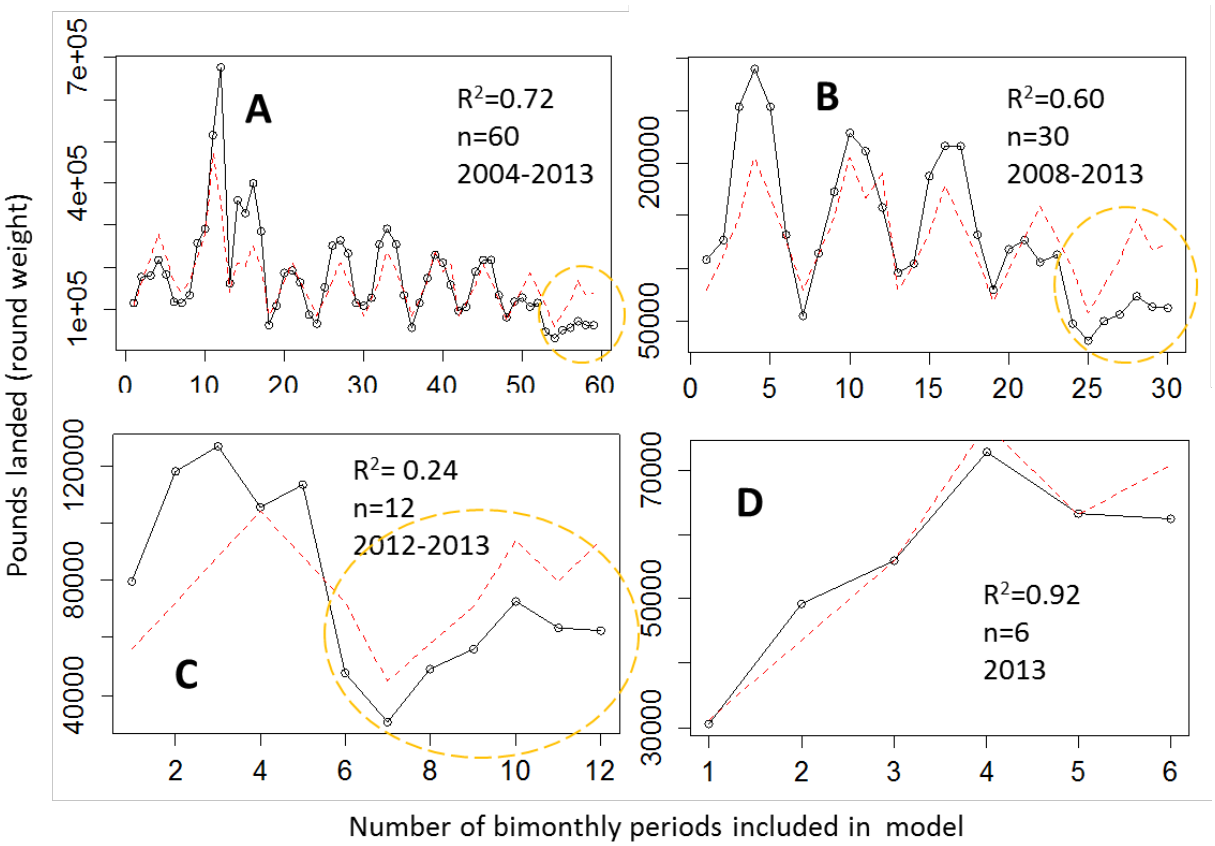

Figure A.4. Paneled fit plots for retrospective analysis of the OA North fishery showing model sensitivity to variation in number of vessels participating, and its inflating effect on predicted landings in 2012 and 2013 (enclosed by yellow dashed line circles). The red dashed line shows predicted landings, and the black solid line shows actual landings by bimonthly period (reverse color scheme from Figure A.2). In each panel, the time series progresses from the oldest year included in the model on the left, to 2013 on the right. Each point represents one bimonthly period (six per year).

Table A.2. Bimonthly counts of participating vessels in the OA North fishery from 2004 through 2014.

Bimonthly period	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1 (Jan-Feb)	59	56	80	61	60	80	57	68	69	34
2 (Mar-Apr)	78	69	151	88	100	103	80	87	88	47
3 (May-Jun)	131	140	201	162	170	169	125	138	119	74
4 (Jul-Aug)	134	146	223	142	175	166	143	151	95	70
5 (Sep-Oct)	91	141	181	109	150	143	125	147	95	55
6 (Nov-Dec)	62	166	2	60	91	77	79	94	47	42
Average	93	120	140	104	124	123	102	114	86	54

A.3. LE South

We made forecasts for the LE South using two model configurations. The one with the best fit (R^2 = 0.84, **Figure A.**1.), and produced the projections in Table 1 included ex-vessel price and weekly trip limits as predictors. We used the same method to construct the predicted price curve for 2014 used in the model as described earlier for the LE North model. An alternate LE South model configuration containing only weekly trip limit as a predictor (used in previous years) was also run, and resulted in slightly lower predicted attainment of 100 percent. The fit for this configuration was much lower at R^2 = 0.58.

A.4. OA South

An adjustment factor was applied to predicted landings for this fishery as a correction since model projections have been substantially higher than actual in 2012 and 2013, and the input data for this fishery model have low information content. Like the OA North fishery, recent participation has been lower than expected based on historical time series. Industry accounts suggest that many previous participants may be leasing and fishing under LE permits. The permits branch in the West Coast Region of NMFS confirms that there has been some new permit leasing activity which may support these accounts.

PFMC
06/21/14