11. Assessment of the Shortraker Rockfish stock in the Gulf of Alaska

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Executive Summary

Rockfish are assessed on a biennial stock assessment schedule to coincide with the availability of new survey data. For Gulf of Alaska rockfish in alternate (even) years we present an executive summary to recommend harvest levels for the next two years. Please refer to last year's full stock assessment report for further information regarding the assessment calculations (Clausen and Echave 2011, available online at http://www.afsc.noaa.gov/refm/docs/2011/GOAshortraker.pdf). A full stock assessment document with updated assessment results will be presented in next year's SAFE report.

We use the average of exploitable biomass from the three most recent trawl surveys to determine the recommended ABC for shortraker rockfish, which qualifies as a Tier 5 stock. For an off-cycle year, there is no new survey information for shortraker rockfish; therefore, the 2011 estimates are rolled over for the next two years.

Summary of changes in Assessment Inputs

Changes in the input data: There were no changes made to the assessment inputs since this was an off-cycle year.

Changes in assessment methodology: There were no changes in assessment methodology since this was an off-cycle year.

Summary of Results

For the 2013 fishery, we recommend the maximum allowable ABC of 1,081 t for shortraker rockfish. Reference values for shortraker rockfish are summarized in the following table, with the recommended ABC and OFL values in bold. The stock was not being subjected to overfishing last year.

Quantity	As estimated or *specified last* year for:		As estimated or *recommended this* year for:	
	2012	2013	2013	2014
M (natural mortality rate)	0.03	0.03	0.03	0.03
Tier	5	5	5	5
Biomass (t)	48,048	48,048	48,048	48,048
F_{OFL}	0.03	0.03	0.03	0.03
$maxF_{ABC}$	0.0225	0.0225	0.0225	0.0225
F_{ABC}	0.0225	0.0225	0.0225	0.0225
OFL (t)	1,441	1,441	**1,441**	1,441
maxABC (t)	1,081	1,081	1,081	1,081
ABC (t)	1,081	1,081	**1,081**	1,081
Status	As determined *last* year for:		As determined *this* year for:	
	2010	2011	2011	2012
Overfishing	No	n/a	No	n/a

Updated catch data (t) for shortraker rockfish in the Gulf of Alaska as of October 1, 2012 (NMFS Alaska Regional Office Catch Accounting System via the Alaska Fisheries Information Network (AKFIN) database, http://www.akfin.org) are summarized in the following table.

Year	Western	Central	Eastern	Gulfwide Total	Gulfwide ABC	Gulfwide TAC
2011	81	237	228	546	914	914
2012	95	263	234	592	1,081	1,081

Area Apportionment

The apportionment percentages are the same as in the 2011 full assessment. The following table shows the recommended apportionment for 2013. Please refer to last year's full stock assessment report for information regarding the apportionment rationale for shortraker rockfish.

	Western	Central	Eastern	Total
Area Apportionment	9.59%	41.82%	48.59%	100%
Area ABC (t)	**104**	**452**	**525**	**1,081**
OFL (t)				**1,441**

Summaries for Plan Team

Species	Year	Biomass[1]	OFL	ABC	TAC	Catch[2]
Shortraker rockfish	2011	40,626	1,219	914	914	546
	2012	48,048	1,441	1,081	1,081	592
	2013	48,048	1,441	1,081		
	2014	48,048	1,441	1,081		

Stock/ Assemblage	Area	2012 OFL	2012 ABC	2012 TAC	2012 Catch[2]	2013 OFL	2013 ABC	2014 OFL	2014 ABC
Shortraker rockfish	W		104	104	95		104		104
	C		452	452	263		452		452
	E		525	525	234		525		525
	Total	1,441	1,081	1,081	592	1,441	1,081	1,441	1,081

[1]Total biomass from trawl survey estimates.

[2]Current as of October 1, 2012. Source: NMFS Alaska Regional Office Catch Accounting System via the Alaska Fisheries Information Network (AKFIN) database (http://www.akfin.org).

SSC and Plan Team Comments on Assessments in General

"The SSC concurs with the Plan Teams' recommendation that the authors consider issues for sablefish where there may be overlap between the catch-in-areas and halibut fishery incidental catch estimation (HFICE) estimates. In general, for all species, it would be good to understand the unaccounted for catches and the degree of overlap between the CAS and HFICE estimates, and to discuss these at the Plan Team meetings next September." (SSC, December 2011)

"The Teams recommend that authors continue to include other removals in an appendix for 2013. Authors may apply those removals in estimating ABC and OFL; however, if this is done, results based on the approach used in the previous assessment must also be presented. The Teams recommend that the

"other" removals data set continue to be compiled, and expanded to include all sources of removal." (Plan Team, September 2012)

"The Plan Teams recommend that assessment authors retain status quo assessment approaches for the November 2012 SAFE report but also apply the Kalman filter or random effects survey averaging methods for Tier 5 stocks and summarize the analytical results for comparison purposes only. ADMB code for implementing the random effects method will be made available." (Plan Team, September 2012)

SSC and Plan Team Comments Specific to this Assessment

"The Plan Team recommends this species be included in the review of area apportionments [to be presented] *in September 2012."* (Plan Team, November 2011)

"The assessment authors note that the trawl survey can only sample a limited proportion of the likely range of shortraker, and that the longline survey may be providing a better abundance index. The SSC encourages the authors to continue to look at ways the longline survey data can be incorporated into the assessment." (SSC, December 2011)

Responses to Comments and Research Priorities for Full Assessment

Responses to the previously listed SSC and Plan Team Comments will be provided in next year's full stock assessment report. To address several of these comments, we plan to follow the recommendations listed in the various working group reports (e.g. the methods for averaging surveys report) submitted to the Plan Team in September 2012. In addition, we anticipate that many of the comments specific to the shortraker rockfish assessment will be considered in the upcoming 2013 Center for Independent Experts (CIE) Alaska rockfish scientific peer review. Evaluation of assessment methods to estimate model parameters, uncertainty, and projections as well as recommendations or prioritizations for future research to improve the assessments will likely be part of this process.

In addition, authors continue to track the current research progress for aging methods for shortraker rockfish so that an age-structured model can be pursued for use in future assessments.

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