CHAPTER 11

Assessment of the Pacific Ocean Perch Stock in the Eastern Bering Sea and Aleutian Islands

by

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Introduction

In 2005, BSAI rockfish were moved to a biennial assessment schedule to coincide with the frequency of trawl surveys in the Aleutian Islands (AI) and the eastern Bering Sea (EBS) slope. These surveys occur in even years and for these years a full assessment of northern rockfish in the BSAI area will be conducted. The 2008 full assessment can be found at http://www.afsc.noaa.gov/refm/docs/2008/BSAIpop.pdf. In years without a scheduled Aleutian Islands survey, an "update" is produced by revising the recent catch data and re-running the projection model using the results from the previous full assessment as a starting point. Therefore, this update was produced by running the projection model with a revised catch estimate for 2008 and a new catch estimate for 2009.

Updated catch and projection

The new information for this update is the final estimate of 2008 catch and a revised estimate of 2009 catch. The 2008 catch was 17,436 t, lower than the estimate of 21,700 t that was used in the 2008 projection. The 2009 catch through October 17th, 2009 was 12,913 t. The estimated 2009 catch is set to the TAC and is 18,817 t. For 2010, we recommend a maximum permissible ABC of 18,859 t based upon the updated projection. This value is very similar to the 2008 projection for 2010 (18,630 t). The stock is not overfished nor approaching an overfishing status. Stock size, harvest, and fishing rate reference values are shown in the following table:

	2008 Projection		2009 Projection	
	2009	2010	2010	2011
M	0.060	--	0.060	--
Tier	3a	--	3a	--
$B_{100\%}$ (t)	307,507	--	307,507	--
$B_{40\%}$ (t)	123,003	--	123,003	--
$B_{35\%}$ (t)	107,627	--	107,627	--
SSB (t)	133,264	131,374	133,136	131,426
Total Biomass (t)	401,725	398,804	403,061	400,457
Max F_{abc} (=$F_{40\%}$)	0.057	0.057	0.057	0.057
F_{ofl} ($F_{35\%}$)	0.068	0.068	0.068	0.068
Max ABC (mt, yield at $F_{40\%}$)	18,817	18,630	18,859	18,677
Recommended ABC	18,817	18,630	18,859	18,677
OFL (mt, yield at $F_{35\%}$)	22,331	22,107	22,381	22,164

Area apportionment

The apportionment of ABC by area within the BSAI is based upon survey data through 2006, and thus the percentages are identical to those used in the 2008 assessment. The following table shows the recommended apportionment for 2010 and 2011 ABC, the area-specific ABCs and TAC for 2008 and 2009, and the area-specific catch for 2008.

	EBS	Eastern AI	Central AI	Western AI	Total
Area apportionment (for 2010-2011)	20.3%	22.4%	22.6%	34.7%	100%
ABC (2008)	4,200 t	4,900 t	4,990 t	7,610 t	21,700 t
TAC (2008)	4,200 t	4,900 t	4,990 t	7,610 t	21,700 t
Catch (2008)	513 t	4,698 t	4,808 t	7,417 t	17,436 t
ABC (2009)	3,820 t	4,200 t	4,260 t	6,520 t	18,800 t
TAC (2009)	3,820 t	4,200 t	4,260 t	6,520 t	18,800 t
ABC (2010)	3,830 t	4,216 t	4,270 t	6,542 t	18,859 t
ABC (2011)	3,793 t	4,176 t	4,229 t	6,479 t	18,677 t

Responses to the comments of the Statistical and Scientific Committee

From the minutes of the December, 2008 meeting of the SSC:

"The BSAI Plan Team recommended that all authors of stocks managed in Tiers 1 through 3 should estimate the probability of the spawning stock biomass falling below $B_{20\%}$. The recommended time frame for this projection was 3-5 years. The SSC agrees with this recommendation and encourages authors to provide estimates of the probability of falling below biologically relevant thresholds such as $B_{20\%}$"

This issue will be addressed in the full assessment of Pacific ocean perch in 2010.

Research Priorities

Little information is known regarding most aspects of the biology of Pacific ocean perch, particularly in the BSAI area. In particular, little is known regarding the distribution, duration, and habitat requirements of the various life-history stages of Pacific ocean perch. Such information would improve the quality of the Pacific ocean perch assessment.

Summary table for the Plan Team

Year	Biomass[1]	OFL	ABC	TAC	Catch
2008	452,941	25,700	21,700	21,700	17,436
2009	401,725	22,300	18,800	18,800	12,913[2]
2010	403,061	22,381	18,859		
2011	400,457	22,164	18,677		

[1] Total Biomass from age-structured projection model.
[2] Catch as of October 17, 2009.