CHAPTER 11

PACIFIC OCEAN PERCH

by

Paul D. Spencer and James N. Ianelli

Introduction

In 2005, BSAI rockfish were moved to a biennial assessment schedule to coincide with the frequency of trawl surveys in the Aleutian Islands and the eastern Bering Sea slope. These surveys occur in even years, and for these years a full assessment of POP the BSAI area will be conducted. The 2006 full assessment can be found at http://www.afsc.noaa.gov/refm/docs/2006/BSAIpop.pdf. In the September 2006 Plan Team meeting, guidelines were established for updating assessments in the off-years. In particular, a full assessment must be produced if the assessment model is re-run, and the single-species projection model may be re-run using new catch data without re-running the assessment model. Therefore, this update was produced by updating the catch data and re-running the projection model using the results from the 2006 assessment model as a starting point.

Updated catch and projection

New information for this update are the final estimate of 2006 catch and a revised estimate of 2007 catch. The 2006 catch was 12,837 t, slightly larger than the 2006 TAC of 12,600 t that was used as an estimate of 2006 catch in the 2006 projection. The estimated 2007 catch is set to the TAC and is 19,900 t, lower than the 2006 projection estimate of maximum permissible ABC of 21,934 t. For 2008, we recommend a maximum permissible ABC of 21,656 t based upon the updated projection. This value is slightly larger than the 2006 projection for 2008 because the 2007 TAC (19,900 t) was lowered from the 2007 ABC (21,934 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:

	2006 Projection		2007 Projection	
	2007	2008	2008	2009
M	0.0616	--	0.0616	--
Tier	3a	--	3a	--
$B_{100\%}$ (mt)	331,158	--	331,158	--
$B_{40\%}$ (mt)	132,463	--	132,463	--
$B_{35\%}$ (mt)	115,905	--	115,905	--
SSB (mt)	154,592	151,852	152,580	150,397
Total Biomass (mt)	457,019	451,132	452,941	448,782
Max F_{abc} (=$F_{40\%}$)	0.05897	0.05897	0.05897	0.05897
F_{ofl} ($F_{35\%}$)	0.070434	0.070434	0.070434	0.070434
Max ABC (mt, yield at $F_{40\%}$)	21,934	21,557	21,656	21,349
Recommended ABC	21,934	21,557	21,656	21,349
OFL (mt, yield at $F_{35\%}$)	26,057	25,609	25,727	25,363

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 2006 assessment. The following table shows the recommended apportionment for 2008 and 2009 ABC, the area-specific ABCs and TAC for 2006 and 2007, and the area-specific catch for 2006.

	EBS	Eastern AI	Central AI	Western AI	Total
Area apportionment	19.40%	22.57%	22.97%	35.06%	100%
ABC (2006)	2,960 t	3,256 t	3,212 t	5,372 t	14,800 t
TAC (2006)	1,400 t	3,080 t	3,035 t	5,085 t	12,600 t
Catch (2006)	1,040 t	3,069 t	3,242 t	5,506 t	12,837 t
ABC (2007)	4,167 t	4,975 t	5,064 t	7,729 t	21,934 t
TAC (2007)	2,160 t	4,970 t	5,050 t	7,720 t	19,900 t
ABC (2008)	4,201 t	4,888 t	4,974 t	7,593 t	21,656 t
ABC (2009)	4,142 t	4,818 t	4,904 t	7,485 t	21,349 t

Responses to the comments of the Statistical and Scientific Committee

In the December, 2006 meeting of the Statistical and Scientific Committee (SSC) of the North Pacific Fisheries Management Council, several comments/requests pertained to the POP assessment and are addressed here.

Evaluate the causative factors for the increases in the depth of fishing in 2004 and 2005 as shown in Table 11.4, based on a concern that deeper fishing indicates an increase in effort to capture relatively constant quantities of fish, which suggests potential stock depletion that is not indicated by the model.

The apparent increase in the depths of fishing for 2004 and 2005 shown in the 2006 assessment was the result of an error in the script used to access the Observer program database, and correction of this error revealed no change in fishing depth for 2004 and 2005 relative to previous years. Specifically, the organization of the Observer program database has changed but the script used to access the data was not updated in response to the new organization. The assessment authors regret this error and the confusion it created.

Other SSC comments/requests pertaining to the POP assessment are listed below.

Explore model sensitivity to natural mortality estimates in relation to the degree of change allowed for time varying selectivity.

Explore alternative priors for natural mortality and evaluate model sensitivity to these changes.

Evaluate/compare external estimates of natural mortality to model estimates.

The assessment authors will address these issues in the next full assessment of BSAI POP in 2008.

Summary table for the Plan Team

Year	Biomass[1]	OFL	ABC	TAC	Catch
2006	453,772	17,600	14,800	12,600	12,837
2007	456,758	26,100	21,900	19,900	17,395[2]
2008		25,727	21,656		
2009		25,363	21,349		

[1] Total Biomass from age-structured projection model.
[2] Catch as of October 6, 2007.

(This page intentionally left blank)