Chapter 15

ASSESSMENT OF BSAI OTHER ROCKFISH

EXECUTIVE SUMMARY

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15.1 Introduction

The Other rockfish complex includes all species of *Sebastes* and *Sebastolobus spp*., other than Pacific ocean perch (*Sebastes alutus*), northern rockfish (*S. polyspinis)*, rougheye rockfish (*S. aleutianus*), and shortraker rockfish, (*S. borealis*). The two most abundant species of the Other rockfish complex are shortspine thornyheads (SST, *Sebastolobus alascanus*) and dusky rockfish (*Sebastes variabilis*). Bering Sea/Aleutian Islands (BSAI) Other rockfish have been moved to a biennial stock assessment schedule to coincide with new survey data from the Eastern Bering Sea (EBS) slope and Aleutian Islands (AI) surveys. Although the EBS shelf survey is conducted on a yearly basis, few rockfish are caught and biomass estimates, when available, are highly uncertain (coefficients of variation have been 0.99). A full assessment was presented in 2008 which included data from the 2008 EBS slope bottom trawl survey. On alternate (even) years we will present an executive summary with updated catch, last year's key assessment parameters, any significant new information available in the interim, and projections for this year.

Effective 2009, Amendment 73/77 removed dark rockfish (*Sebastes ciliatus*) from both fishery management plans and transferred management to the State of Alaska. The ABC and OFL values for 2010 and 2011 do not include dark rockfish in the Other rockfish complex.

Other rockfish have been assessed using Tier 5 criteria given the lack of age data available to support age structured modeling. Due to a lack of information on stock structure, genetic and otherwise, between the EBS and AI regions, The Council sets BSAI OFL for the Other rockfish complex and separate ABCs for each region. ABCs and OFLs are calculated for shortspine thornyheads using a natural mortality rate of M= 0.03 and M=0.09 (dusky rockfish M) for the remainder of the complex. Calculation of the BSAI OFL is (BSAI SST OFL + BSAI Other rockfish OFL) and the ABC is (SST ABC + Other rockfish ABC) for the EBS and AI regions. The BSAI biomass estimates are calculated by adding the average survey biomass of the Aleutian Islands (1997-2008 surveys) to the average EBS slope survey biomass estimates (2002-2008). The exploitable BSAI biomass as presented in last year's assessment for **SST is 35,803 t (EBS= 20,898 t, AI= 14,905 t) and 3,412 t for Other rockfish (EBS= 162, AI= 3,250)**.

The Council set the 2009 BSAI OFL for Other rockfish at 1,380 t, and the TAC equal to the ABC at 485 t for the EBS and 555 t for the AI. Last year's full assessment is available on the web (Reuter and Spencer 2008, http://www.afsc.noaa.gov/refm/docs/2008/BSAIorock.pdf)

15.2 New information and projection

New catch information includes updated 2008 and 2009 catches by area as of October 19, 2009 http://www.fakr.noaa.gov/2009/car110_bsai_with_cdq.pdf

BSAI Other rockfish catches (t) by region

	EBS	AI	Total
2008	209	388	597
2009	185	324	509

There is no new information incorporated into the projection. For the 2010 fishery, we recommend an EBS ABC of 481 and AI ABC of 554 t. These ABCs are *nearly* equivalent to last year's ABCs for 2009 (and 2010) set by the Council. The corresponding reference values for BSAI Other rockfish are summarized below. Because Other rockfish are managed in Tier 5, some of the values are not applicable (NA).

Tier 5	Last year's projection		This year's projection	
M = 0.03 for SST, M= 0.09 for Other rockfish (Orock)	2009	2010	**2010**	2011
$B_{40\%}$ (tt)	NA	NA	NA	NA
Female Spawning Biomass (t)	NA	NA	NA	NA
Maximum permissible F_{ABC}				
SST	0.0225	0.0225	**0.0225**	0.0225
Orock	0.0675	0.0675	**0.0675**	0.0675
F_{ABC}				
SST	0.0225	0.0225	**0.0225**	0.0225
Orock	0.0675	0.0675	**0.0675**	0.0675
F_{OFL}				
SST	0.03	0.03	**0.03**	0.03
Orock	0.09	0.09	**0.09**	0.09
EBS ABC (t yield at F_{ABC} = 0.75M)				
SST (20,898 t x 0.0225)	470	470	470	470
Orock (162 t x .0675)	11	11	11	11
Total	481	481	**481**	481
EBS TAC	*485*	*485*		
AI ABC (t yield at F_{ABC} = 0.75M)				
SST (14,905 t x 0.0225)	335	335	335	335
Orock (3,250 t x 0.0675)	219	219	219	219
Total	554	554	**554**	554
AI TAC	*555*	*555*		
BSAI OFL (t, yield at F_{ABC} = M)				
SST (35,803 t x 0.03)	1,074	1,074	1,074	1,074
Orock (3,412 t x 0.09)	307	307	307	307
Total	1,381	1,381	**1,381**	1,381

15.3 Research priorities

Data on the life history, spatial distribution, and abundance would aid in development of alternative management strategies for non-target species, such as SST and Other rockfish. Specifically, these data types include but are not limited to: age data from the fishery for dusky

rockfish; spatial and temporal length data from AI fishery for dusky rockfish; improved spatial distribution and abundance data of Other rockfish; aging techniques for SST; and biomass data for dusky rockfish in the AI. Research priorities for the Other rockfish complex and are analyses that utilize the above data to suggest stock health, potential fishery impacts, and provide suggestions to mitigate concerns on conservation of the stock and localized depletion. Because the current AFSC surveys do not adequately assess most of the species within this complex, the authors suggest that a rockfish-centric survey be developed to obtain specimens to calculate the various life history parameters.

15.4 Summaries for the Plan Team

Species	Year	Biomass	OFL	ABC	TAC	Catch
	2009	39,215	1,380	1,040	1,040	509[1]
Other Rockfish	2010	39,215	1,380	1,035		
	2011	39,215	1,380	1,035		

Stock/		2009				2010		2011	
Assemblage	Area	OFL	ABC	TAC	Catch[1]	OFL	ABC	OFL	ABC
	EBS	--	485	485	185		481		481
Other Rockfish	AI	--	555	555	324		554		554
	Total	1,380	1,040	1,040	509[1]	1,380	1,035	1,380	1,035

1/ Current as of October 19, 2009 http://www.fakr.noaa.gov/2009/car110_bsai_with_cdq.pdf

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