Chapter 16

ASSESSMENT OF GULF OF ALASKA ATKA MACKEREL

EXECUTIVE SUMMARY

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16.1 Introduction

Gulf of Alaska (GOA) Atka mackerel has been moved to a biennial stock assessment schedule to coincide with new survey data. A full assessment was presented in 2007 which included data from the 2007 GOA 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.

Gulf of Alaska Atka mackerel have been managed under Tier 6 specifications since 1996 due to lack of reliable estimates of current biomass. Last year, the 2007 assessment presented Tier 5 calculations of ABC and OFL (based on 2007 survey biomass estimates) for consideration. The Plan Team and SSC agreed with the authors that there is not a reliable estimate of Atka mackerel biomass and recommended continuing management under Tier 6. The Council set Gulfwide 2008 OFL, ABC, and TAC for Atka mackerel at 6,200 t, 4,700 t, and 1,500 t, respectively. Last year's full assessment is available on the web (Lowe et al. 2007, http://www.afsc.noaa.gov/refm/docs/2007/GOAatka.pdf).

16.2 New information and projection

New catch information includes updated 2007 catch (1,453 t), and 2008 catch (2,071 t) as of November 8, 2008 (http://www.fakr.noaa.gov/2008/car110_goa.pdf). The 2008 GOA Atka mackerel catch through October is nearly 570 t over the 2008 TAC. Significant catches were taken in area 610 and to some extent from area 620 by rockfish fisheries. Under the Rockfish Program, catcher processors who historically would move out of area 610 after the POP fishery closed, are now remaining in the area and targeting northern and pelagic shelf rockfish. This is contributing to greater catches (much of it discarded) of Atka mackerel. Also, in 2008 a small amount of observer data for the catcher vessels indicated a high discard rate for Atka mackerel in area 610 that was extrapolated to the trawl catcher vessel fleet.

Since the 2007 assessment, ages from the 2007 GOA survey have become available. A total of 144 otoliths were collected from 38 hauls throughout the Western and Central Gulf. The data continue to show that the 1999 year class dominates the age distribution (Figure 1).

There is no new information incorporated into the projection. For the 2009 fishery, we recommend an ABC of 4,700 t. This ABC is equivalent to last year's ABC for 2008 (and 2009). The corresponding reference values for Atka mackerel are summarized below. Because Atka mackerel are managed in Tier 6, several of the values are unknown or not applicable (NA).

Tier 6	Last year's projection		This year's projection	
M = 0.3	2008	2009	**2009**	2010
$B_{40\%}$ (t)	NA	NA	NA	NA
Female Spawning Biomass (t)	NA	NA	NA	NA
Maximum permissible F_{ABC}	Unknown	Unknown	Unknown	Unknown
F_{ABC}	Unknown	Unknown	Unknown	Unknown
F_{OFL}	Unknown	Unknown	Unknown	Unknown
ABC (t, 0.75 x ave. catch 1978-95)	4,700	4,700	**4,700**	4,700
OFL (t, ave. catch 1978-95)	6,200	6,200	**6,200**	6,200

16.3 Area apportionment

There is no area apportionment for GOA Atka mackerel. The Council manages GOA Atka mackerel on a Gulfwide basis.

16.4 Research priorities

Regional and seasonal food habits data for Gulf of Alaska Atka mackerel is very limited. Studies to determine the impacts of environmental indicators such as temperature regime on Atka mackerel are needed. Further studies to determine whether there have been any changes in life history parameters over time (e.g. maturity-at-age, fecundity, weight- and length-at-age) would be informative. More information on Atka mackerel habitat preferences would be useful to improve our understanding of Essential Fish Habitat (EFH), and improve our assessment of the impacts to habitat due to fishing. Better habitat mapping of the Gulf of Alaska would provide information for survey stratification and the extent of trawlable and untrawlable habitat.

16.5 Summaries for the Plan Team

Species	Year	Biomass	OFL	ABC	TAC	Catch
Atka mackerel (Gulfwide)	2007	Unknown	6,200	4,700	1,500	1,453
	2008	Unknown	6,200	4,700	1,500	2,071[1]
	2009	Unknown	6,200	4,700		
	2010	Unknown	6,200	4,700		

1/ Current as of November 8, 2008 (http://www.fakr.noaa.gov/2008/car110_goa.pdf).

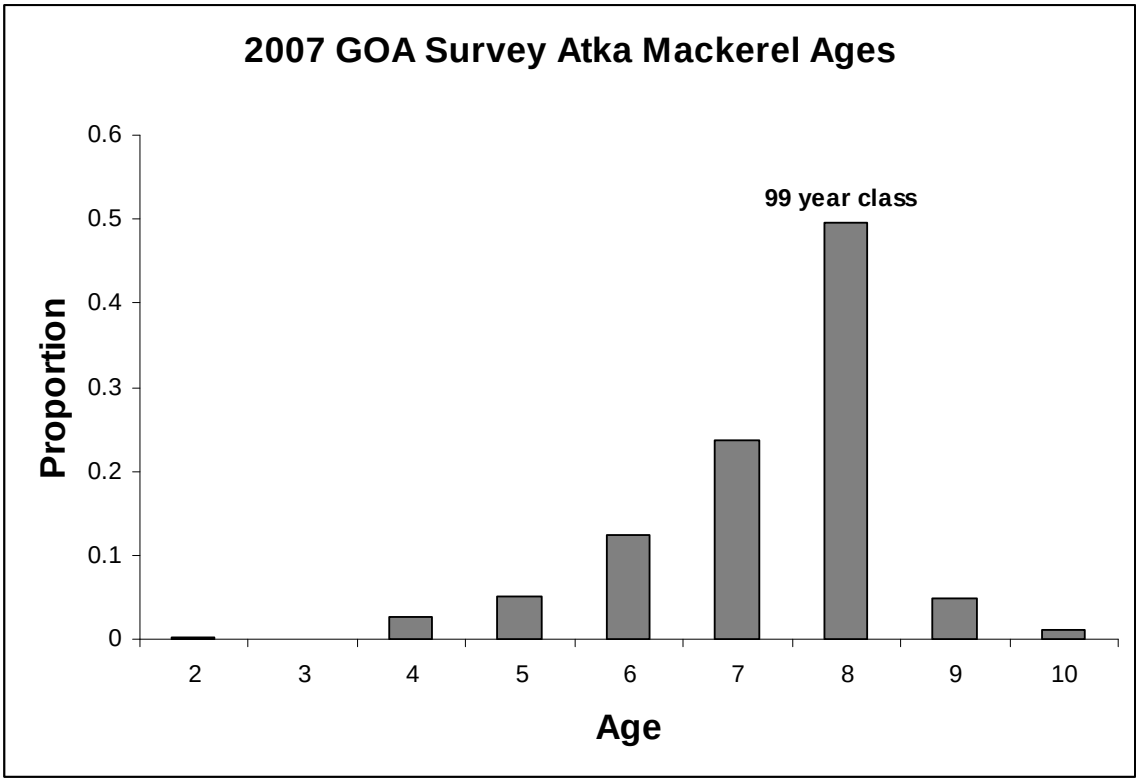

Figure 1. Age frequency distribution of Atka mackerel from the 2007 Gulf of Alaska bottom trawl survey. A total of 144 otoliths were collected and aged.

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