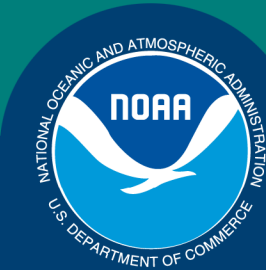


*Science, Service, Stewardship*



# Gulf of Alaska Arrowtooth Flounder

Ingrid Spies

November 15, 2016

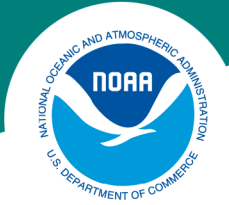
**NOAA  
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NOAA

# NOAA FISHERIES SERVICE

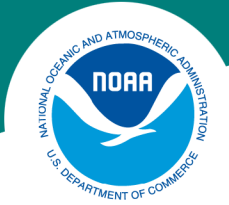


Quantity	As estimated or <i>specified last year for:</i>		<i>*As estimated or recommended this year for:</i>	
	2016	2017	2017	2018
$M$ (natural mortality rate)**	0.35, 0.2	0.35, 0.2	0.35, 0.2	0.35, 0.2
Tier	3a	3a	3a	3a
Projected total (age 1+) biomass (t)	2,103,860	2,083,450	2,103,090	2,079,029
Projected Female spawning	1,175,240	1,157,520	1,174,400	1,154,310
$B_{100\%}$	992,272	992,272	992,272	992,272
$B_{40\%}$	396,909	396,909	396,909	396,909
$B_{35\%}$	347,295	347,295	347,295	347,295
$F_{OFL}$	0.204	0.204	0.204	0.204
$maxF_{ABC}$	0.171	0.171	0.171	0.171
$F_{ABC}$	0.171	0.171	0.171	0.171
OFL (t)	219,430	196,714	219,327	196,635
maxABC (t)	186,188	189,332	186,093	188,867
ABC (t)	186,188	189,332	186,093	188,867
Status	As determined <i>last year for:</i>		As determined <i>this year for:</i>	
	2014	2015	2015	2016
Overfishing	no	n/a	no	n/a
Overfished	n/a	no	n/a	no
Approaching overfished	n/a	no	n/a	no



## Apportionment (based on random effect estimates in each subarea)

	Western	Central	West Yakutat	East Yakutat/SE	Total
2015 Area Apportionment	15.1%	58.0%	20.1%	6.8%	100%
2017 ABC (t)	28,100	107,934	37,405	12,654	186,093
2018 ABC (t)	28,519	109,543	37,962	12,843	188,867



## Catch estimates

The final catch for 2016 was estimated by adding the average catch between October 21 and December 31 from the previous four years (2012-2015) to the 2016 catch through October 21, for a total of 21,080 t. The 2017 catch was estimated as the average catch over the past five years (2012-2016, utilizing the full year's catch estimate for 2016), 23,720 t.