

18. Assessment of the skate stock complex in the Bering Sea and Aleutian Islands

Olav A. Ormseth
NMFS Alaska Fisheries Science Center, Seattle, WA

Alaska skate harvest recommendations

Quantity	As estimated or specified last year for:		As estimated or recommended this year for:	
	2013	2014	2014	2015
M (natural mortality rate)	0.13	0.13	0.13	0.13
Tier	3a	3a	3a	3a
Projected total (age 0+) biomass (t)	650,483	630,086	603,520	579,785
Female spawning biomass (t)				
Projected	194,072	189,811	185,076	178,762
$B_{100\%}$	266,810	266,810	266,810	266,810
$B_{40\%}$	106,724	106,724	106,724	106,724
$B_{35\%}$	93,384	93,384	93,384	93,384
F_{OFL}	0.113	0.113	0.113	0.113
$maxF_{ABC}$	0.098	0.098	0.098	0.098
F_{ABC}	0.098	0.098	0.098	0.098
OFL (t)	36,315	34,596	32,381	30,278
Maximum ABC (t)	31,720	30,218	28,282	26,444
ABC (t)	31,720	30,218	28,282	26,444
Status	As determined last year for:		As determined this year for:	
	2011	2012	2012	2013
Overfishing	No	n/a	No	n/a
Overfished	n/a	No	n/a	No
Approaching overfished	n/a	No	n/a	No

other skate harvest recommendations				
Quantity	As estimated or <i>specified last year for:</i>		As estimated or <i>recommended this year for:</i>	
	2013	2014	2014	2015
M (natural mortality rate)	0.1	0.1	0.1	0.1
Tier	5	5	5	5
Biomass (t)	94,684	94,684	94,684	94,684
F_{OFL}	0.1	0.1	0.1	0.1
$maxF_{ABC}$	0.075	0.075	0.075	0.075
F_{ABC}	0.075	0.075	0.075	0.075
OFL (t)	9,468	9,468	9,468	9,468
Maximum ABC (t)	7,101	7,101	7,101	7,101
ABC (t)	7,101	7,101	7,101	7,101
Status	As determined <i>last year for:</i>		As determined <i>this year for:</i>	
	2011	2012	2012	2013
Overfishing	No	n/a	No	n/a

aggregate harvest recommendations for the BSAI complex				
Quantity	As estimated or <i>specified last year for:</i>		As estimated or <i>recommended this year for:</i>	
	2013	2014	2014	2015
OFL (t)	45,800	44,100	41,849	39,746
ABC (t)	38,800	37,300	35,383	33,545