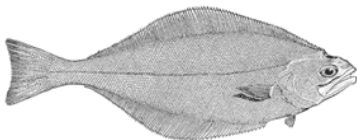


Assessment of the Arrowtooth Flounder Stock in the Bering Sea and Aleutian Islands

Ingrid Spies, Kerim Aydin, James N. Ianelli, and Wayne
Palsson

11/13/2019



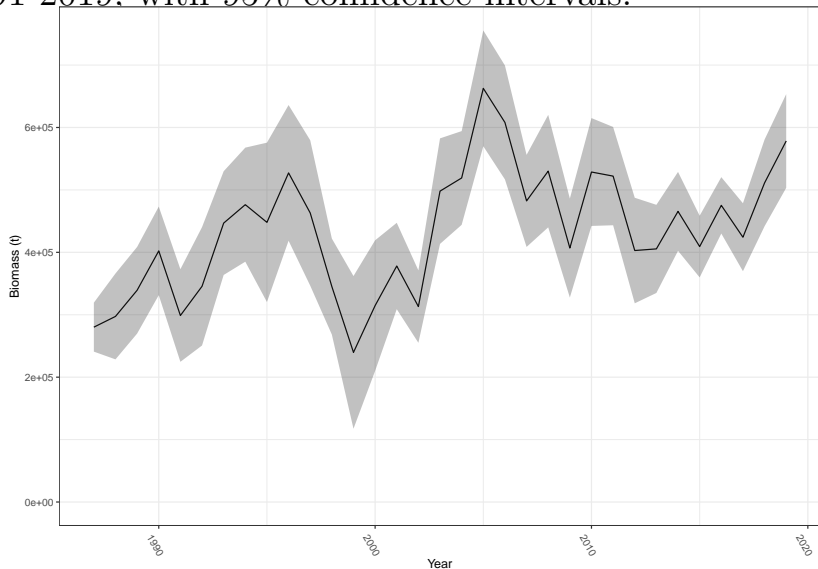
Changes in the data

- Catch for 2018 was 7,002 t.
- 2019 catch extrapolated to 8,391 t.
- The 2020 catch estimate of 12,000 t was based on the average catch from 2014-2018.
- There has been a decreasing trend in ATF catch since 2015 but catch in 2019 appears higher than previous years.

Model estimates of biomass, catch, and catch/biomass ratio for 1976-2021

Year	Biomass	Catch	Catch/Biomass Ratio
2010	939,969	38,803	0.041
2011	925,548	20,141	0.022
2012	901,347	22,324	0.025
2013	872,920	20,537	0.024
2014	848,196	19,111	0.023
2015	827,152	11,270	0.014
2016	816,183	11,105	0.014
2017	822,634	6,518	0.008
2018	849,621	7,002	0.008
2019	891,959	8,072	0.009
2020	934,008	8,391	0.009
2021	964,925	12,000	0.012

Biomass estimates of arrowtooth flounder (in metric tons) from the NMFS eastern Bering Sea survey, 1991-2019, with 95% confidence intervals.



Summary Table

Quantity	As estimated or <i>specified</i> <i>last year for:</i>		As estimated or <i>recommended</i> <i>this year for:</i>	
	2019	2020	2020	2021
M (natural mortality rate, ages 3+)	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)	892,591 t	932,024 t	934,008 t	964,925 t
Projected female spawning biomass (t)	482,174 t	472,507 t	478,260 t	472,515 t
<i>B</i> _{100%}	606,237 t	606,237	606,237 t	606,237 t
<i>B</i> _{40%}	242,495 t	242,495	242,495 t	242,495 t
<i>B</i> _{35%}	212,183 t	212,183	212,183 t	212,183 t
<i>F</i> _{OFL}	0.161	0.161	0.161	0.161
<i>maxF</i> _{ABC}	0.136	0.136	0.136	0.136
<i>F</i> _{ABC}	0.136	0.136	0.136	0.136
<i>OFL</i>	82,939 t	83,814 t	84,057 t	86,647 t
<i>maxABC</i>	70,673 t	71,411 t	71,618 t	73,804 t
<i>ABC</i>	70,673 t	71,411 t	71,618 t	73,804 t
Status	2017	2018	2018	2019
Overfishing	No	n/a	No	n/a
Overfished	n/a	No	n/a	No
Approaching overfished	n/a	No	n/a	No

Questions?

