

# GOA Flathead Sole Partial Assessment

(Full assessment scheduled for 2021)

Carey McGilliard

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# Executive Summary

- Projection model for GOA flathead sole using output from age-structured model
- Used age 3 recruits
- Updated 2018 catch
  - 139 t greater than projected in 2018
- 2019 catch estimated as 2019 current catch up to Oct 19 + 5-yr average Oct 19-Dec 31 catch
  - 278 t more than projected in 2018
- 2020-2021 catch estimated as 2014-2018 average catch
  - 123 t less than 2020 projected catch in 2018

Quantity	As estimated or <i>specified last year for:</i>		As estimated or <i>recommended this year for:</i>	
	2019	2020	2020*	2021*
$M$ (natural mortality rate)	0.2	0.2	0.2	0.2
Tier	3a	3a	3a	3a
Projected total (3+) biomass (t)	283,285	282,750	282,371	280,730
Projected Female spawning biomass (t)	89,205	92,655	92,467	95,216
$B_{100\%}$	91,551	91,551	91,551	91,551
$B_{40\%}$	36,620	36,620	36,620	36,620
$B_{35\%}$	32,043	32,043	32,043	32,043
$F_{OFL}$	0.36	0.36	0.36	0.36
$maxF_{ABC}$	0.28	0.28	0.28	0.28
$F_{ABC}$	0.28	0.28	0.28	0.28
OFL (t)	44,865	46,666	46,572	47,919
maxABC (t)	36,782	38,273	38,196	39,326
ABC (t)	36,782	38,273	38,196	39,326
Status	As determined <i>last year for:</i>		As determined <i>this year for:</i>	
	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

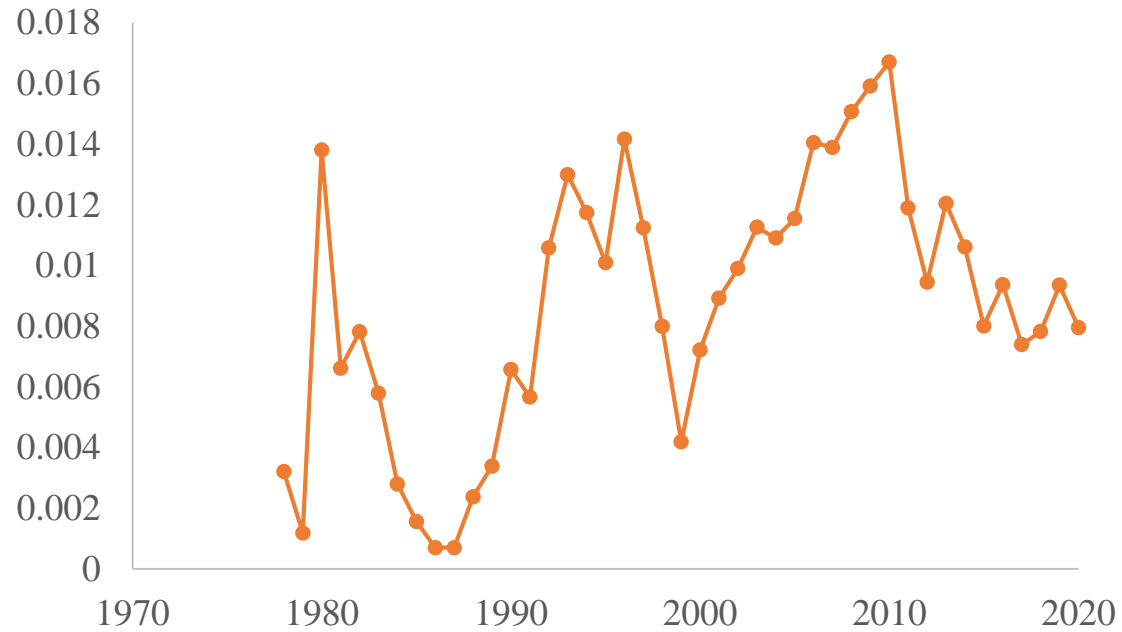
# Area Apportionment

- Random effects model used to smooth survey biomass by area

<b>Quantity</b>	<b>Western</b>	<b>Central</b>	<b>West Yakutat</b>	<b>Southeast</b>	<b>Total</b>
Area Apportionment	36.08%	52.89%	6.16%	4.86%	100.00%
2020 ABC (t)	13,783	20,201	2,354	1,858	38,196
2021 ABC (t)	14,191	20,799	2,424	1,912	39,326

- Survey biomass in 2019 was, down by from 2017
- 2020 recommended ABC is 38,196 t

Catch/Total Age 3+ Biomass



Total Catch (t)

