

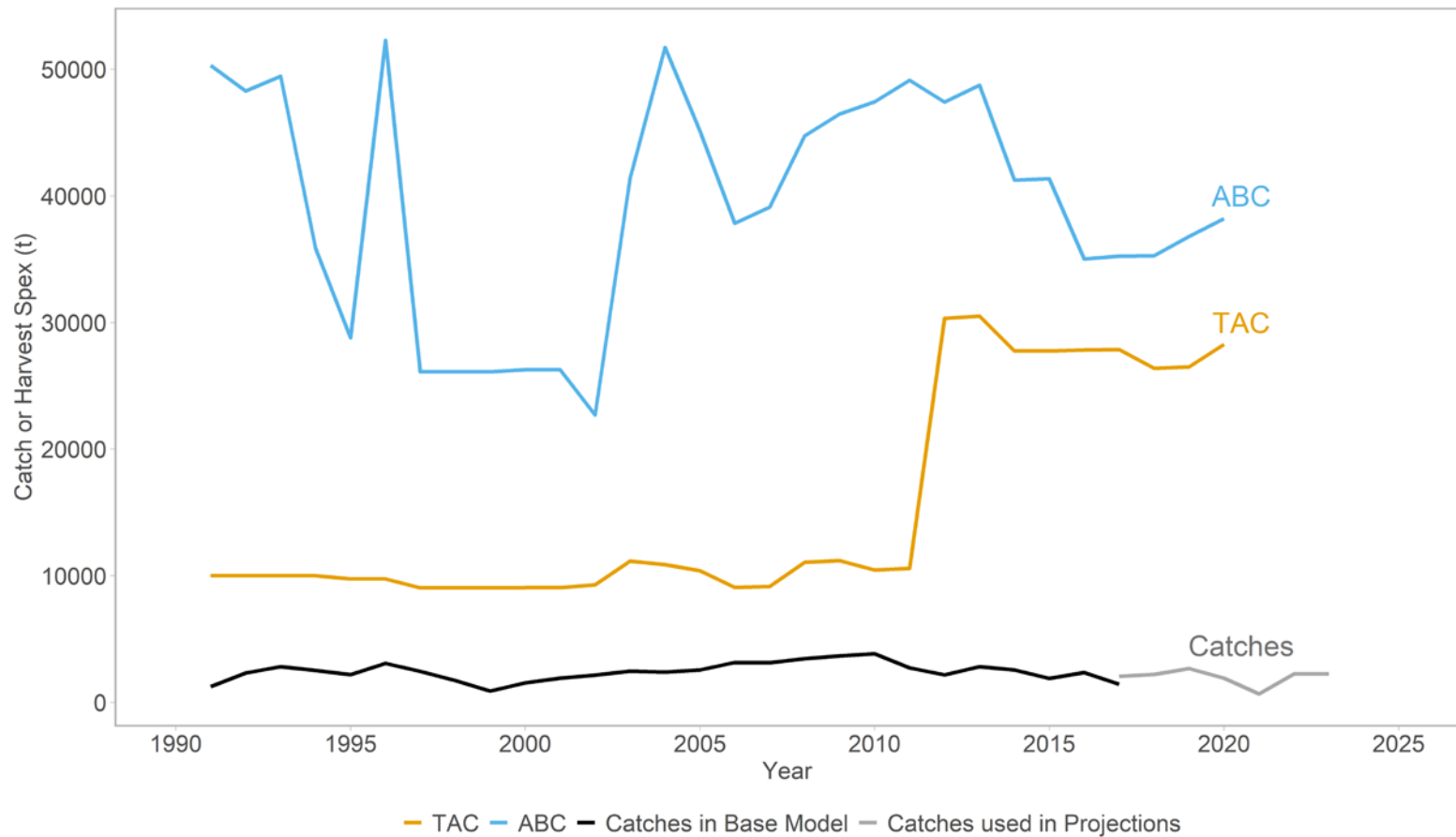
GOA FLATHEAD SOLE PARTIAL UPDATE

MAIA SOSA KAPUR – 16 NOV 2021

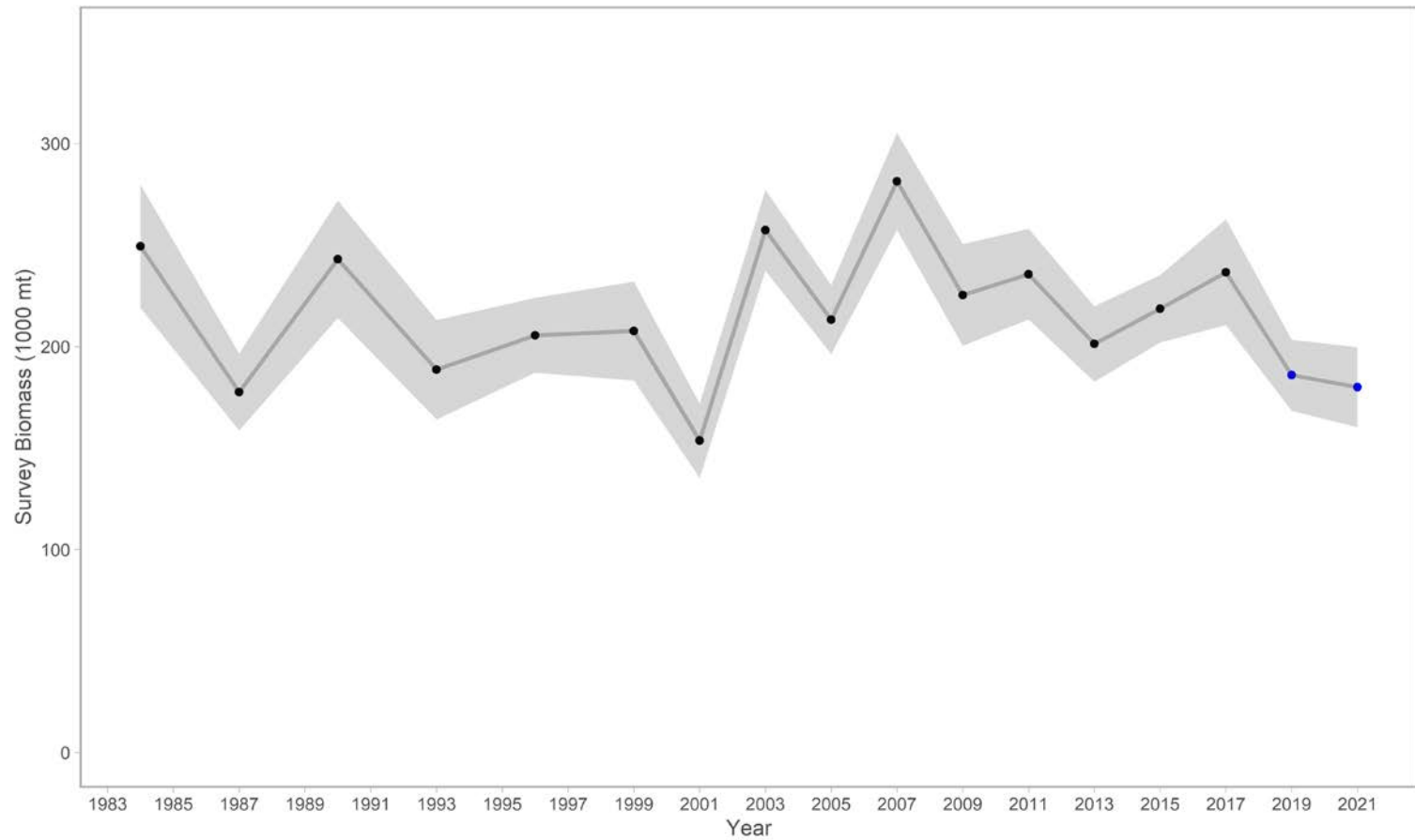
MAIA.KAPUR@NOAA.GOV



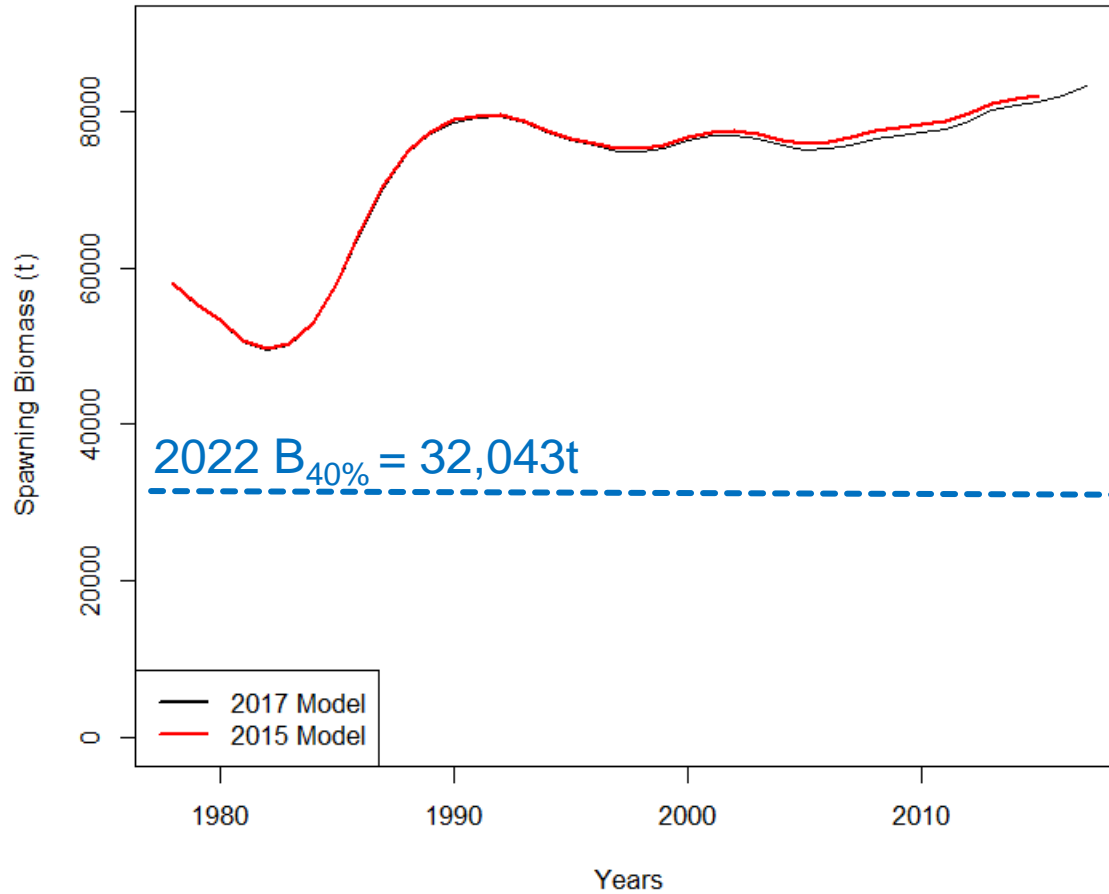
CATCHES << TAC < ABC



SURVEY BIOMASS BELOW PEAK, BUT STABLE



SSB HIGH AND STABLE



ABC APPORTIONMENT

Quantity	Western		Central		West Yakutat		Southeast	
	2020	2021	2020	2021	2020	2021	2020	2021
Area Apportionment	36.08%	36.73%	52.89%	54.84%	6.16%	3.76%	4.86%	4.67%
2022 ABC (t)	14,492	14,755	21,243	22,033	2,474	1,511	1,952	1,876
2023 ABC (t)	14,445	14,708	21,176	21,962	2,466	1,506	1,946	1,870

Grey columns from last partial;
blue columns include 2021 survey in random effects model.



Quantity	As estimated or specified last year for:		As estimated or recommended this year for:	
	2021	2022	2022	2023
M (natural mortality rate)	0.2	0.2	0.2	0.2
Tier	3a	3a	3a	3a
Projected total (3+) biomass (t)	280,980	278,418	279,975	276,796
Projected Female spawning biomass (t)	95,338	96,833	97,614	97,876
$B_{100\%}$	91,551	91,551	91,551	91,551
$B_{40\%}$	36,620	36,620	32,043	32,043
$B_{35\%}$	32,043	32,043	36,620	36,620
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)	47,982	48,534	48,928	48,757
maxABC (t)	39,377	39,851	40,175	40,046
ABC (t)	39,377	39,851	40,175	40,046
Status	As determined <i>last</i> year for:		As determined <i>this</i> year for:	
	2019	2020	2020	2021
Overfishing	no	n/a	no	n/a
Overfished	n/a	no	n/a	no
Approaching overfished	n/a	no	n/a	no



NEXT FULL ASSESSMENT

- Bridging to latest Stock Synthesis*
- Analyze ageing error/introduce ageing error matrix
- Explore relationship between M and q (likelihood profiles)
- Explore scientific uncertainty (fixed parameters)

