

# Sole 27.4 - 2021 forecast

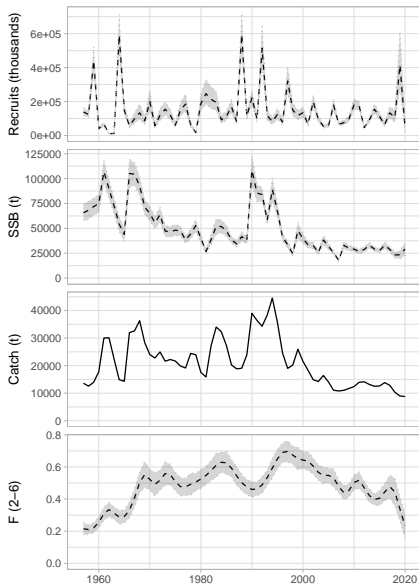
ICES WGNSSK. Web, 21-30 April 2021

Iago MOSQUEIRA

Wageningen Marine Research (WMR), IJmuiden, The Netherlands.

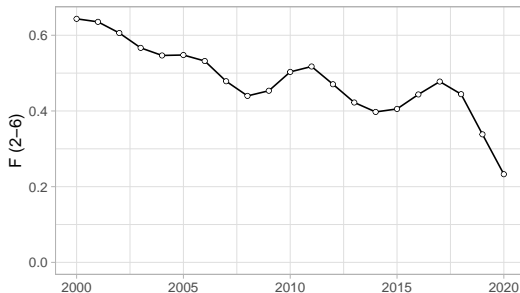


# AAP 2020 assessment



# Forecast assumptions and settings

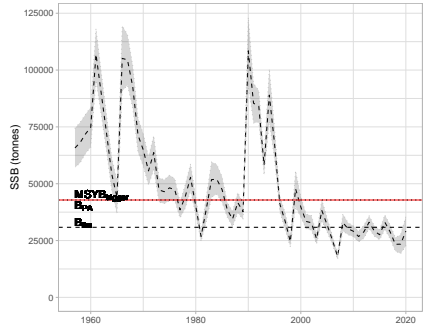
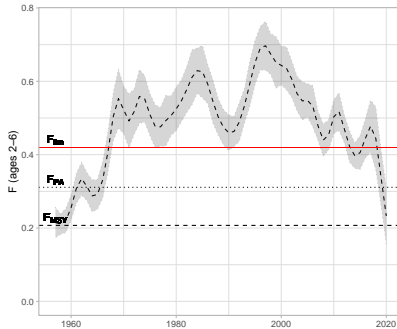
- Natural mortality: 0.1 / year.
- Maturity: knife-edge at age 3.
- F and M before spawning: 0
- Weights at age catch & stock: 5 year average.
- Selectivity at age: 5 year average.
- Discards ratio at age: 3 year average.



# Intermediate year assumptions

- TAC 2020: 17,545 t
- Catch 2020: 10,490 t
- TAC 2021: 21,361 t
- Catch 2021 ( $F_{2020}=0.23$ ) = 16,656 t
- $F_{2021} = 0.23$
- Recruitment: Geometric mean 1957-2017

# Reference points

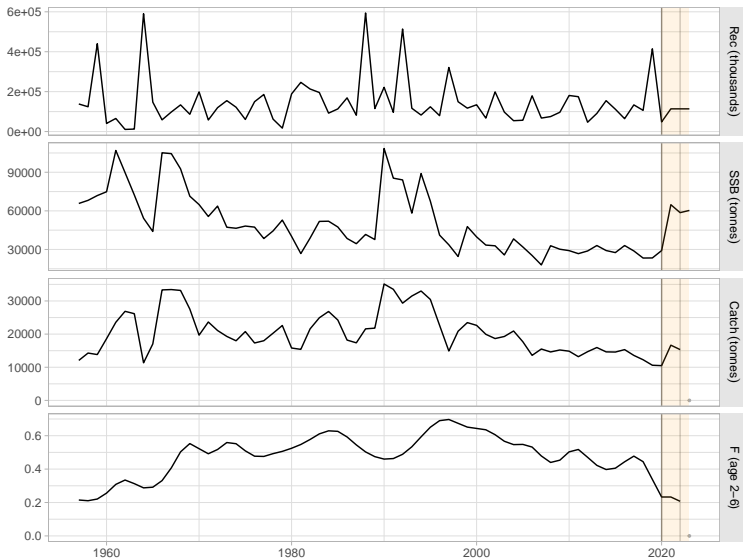


Btrigger	Fmsy	Blim	Bpa	Flim	Fpa	IFmsy	uFmsy
43000	0.21	31000	43000	0.42	0.30	0.123	0.34

# Catch options

Basis	(2022)			(2022)			(2023)	(2023/2022)	(2022/2021)	
	Catch	Wanted	Unwanted	F(2-6)	Wanted	Unwanted	SSB (2022)	%SSB	%TAC	%Advice
MSY approach: F[MSY]	15330	14215	1115	0.207	0.181	0.019	60339	2.9	-28	-28
F=MAP F[MSY lower]	9523	8836	687	0.123	0.108	0.011	65840	12.3	-55	-55
F=MAP F[MSY upper]	23540	21804	1736	0.341	0.298	0.030	52590	-10.3	10.2	10.2
F=0	0	0	0	0.000	0.000	0.000	74886	28	-100	-100
F[pa]	21270	19708	1562	0.302	0.264	0.027	54729	-6.6	-0.43	-0.43
F[lim]	27852	25782	2070	0.420	0.367	0.037	48535	-17.2	30	30
SSB (2023)=B[pa]	33930	31377	2553	0.543	0.475	0.049	42838	-27	59	59
SSB(2023)=B[lim]	46859	43217	3641	0.876	0.766	0.078	30828	-47	119	119
SSB(2023)=MSY B[trigger]	33930	31377	2553	0.543	0.475	0.049	42838	-27	59	59
F[2021]	17001	15761	1240	0.233	0.204	0.021	58760	0.24	-20	-20
F[mp]	14853	13773	1080	0.200	0.175	0.018	60791	3.7	-30	-30
Roll-over TAC	21361	19792	1569	0.303	0.265	0.027	54644	-6.8	0.00	0.00

# Stock projection



# Uncertainty in SSB

