

American Samoa Model Checks

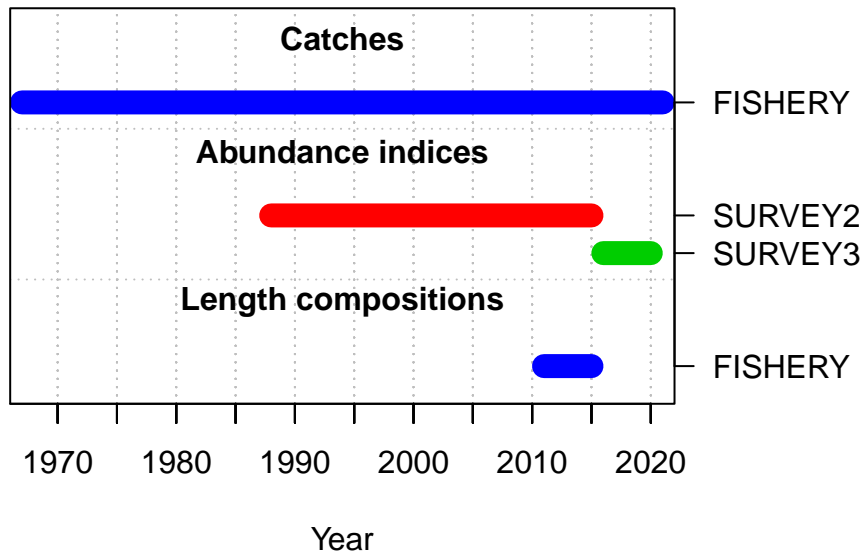
Marc Nadon and Meg Oshima

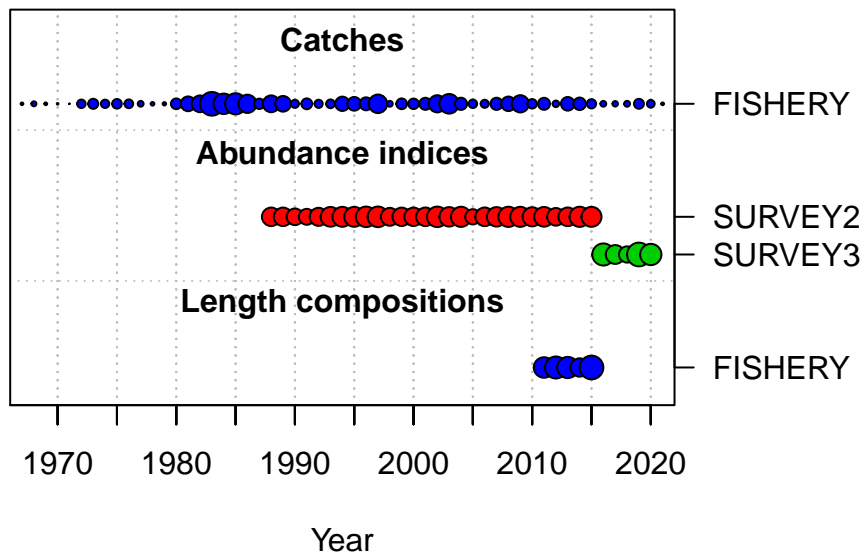
2023-02-14

This is a summary report for the VALO base model run.

Model Output

Input Data





Convergence Check

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Converged      MaxGrad
1      TRUE 3.96087e-05

```

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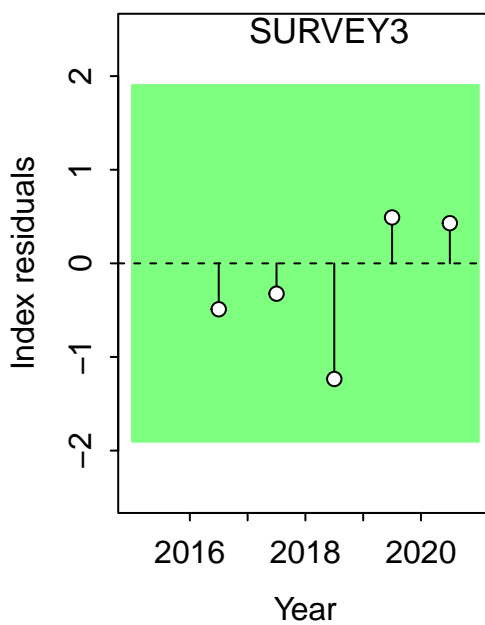
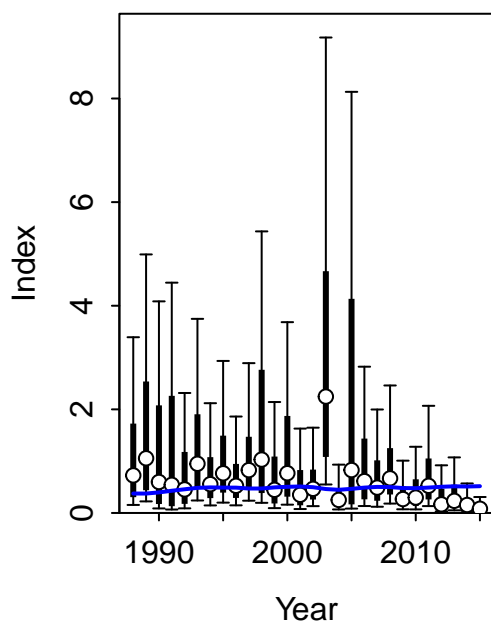
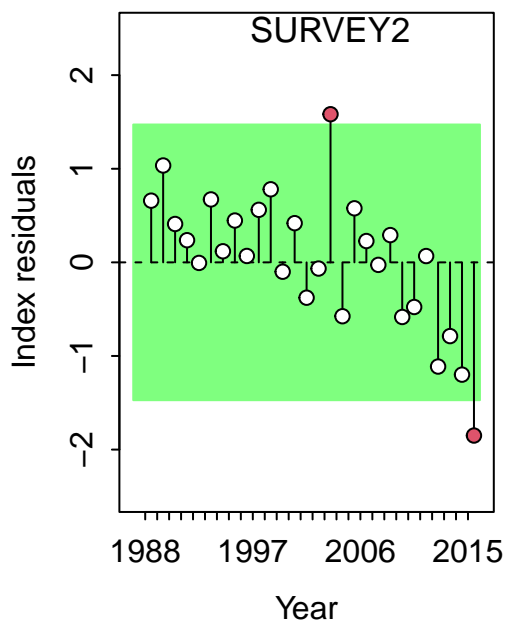
[1] "1 NOTE: Max data length bin: 51 < max pop len bins: 57; so will accumulate larger pop
[2] " N parameters are on or within 1% of min-max bound: 1; check results, variance may be s
[3] "N warnings: 1"

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Fit to Model

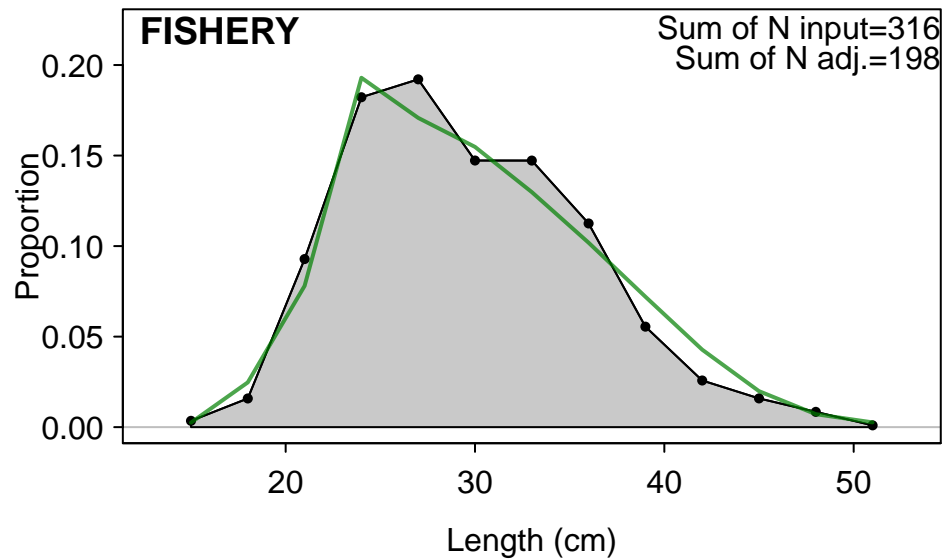
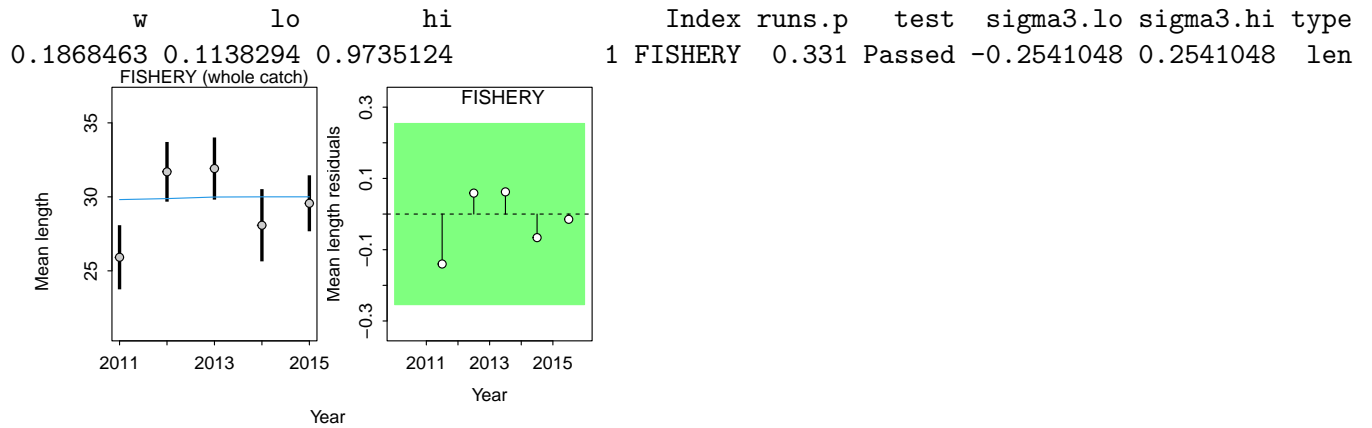
CPUE

Fleet	RMSE.perc	Nobs
SURVEY2	71.4	28
SURVEY3	67.8	5
Combined	70.8	33

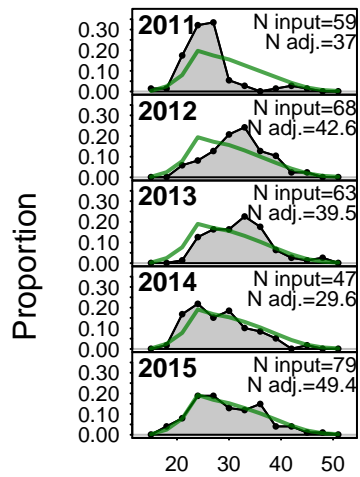


Length Comp

Fleet	RMSE.perc	Nobs
FISHERY	7.9	5
Combined	7.9	5



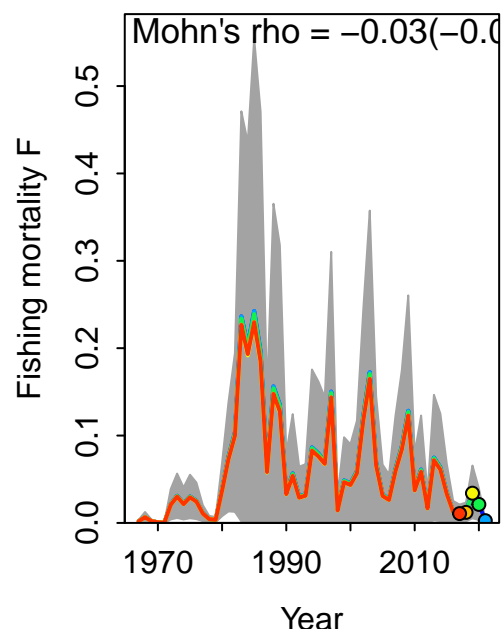
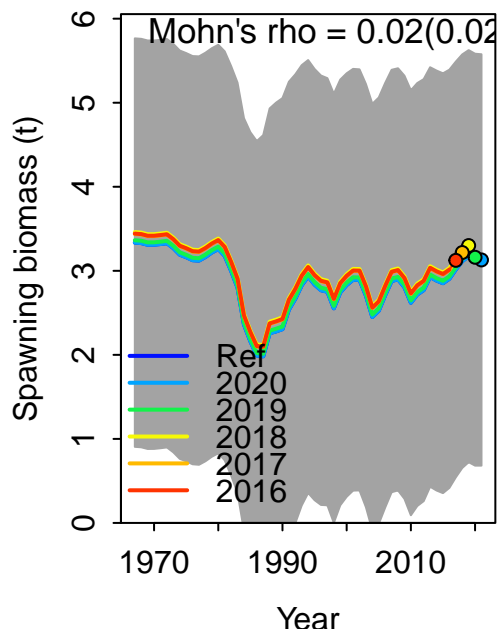
Retrospective and Hindcasting



Length (cm)

Retrospective

Mohn's Rho stats, including one step ahead forecasts:



Mohn's Rho stats, including one step ahead forecasts:

	type	peel	Rho	ForecastRho
1	F	2020	0.000000000	0.000000000
2	F	2019	-0.009739912	-0.009684585
3	F	2018	-0.042392961	-0.041826980
4	F	2017	-0.035996867	-0.034909973
5	F	2016	-0.038992533	-0.037572124
6	F Combined		-0.025424455	-0.024798732

Hindcasting

Plotting Hindcast Cross-Validation (one-step-ahead)

No observations in evaluation years to compute prediction residuals for Index SURVEY2

MASE stats by Index:

Plotting Hindcast Cross-Validation (one-step-ahead)

No observations in evaluation years to compute prediction residuals for Index FISHERY

MASE stats by Index:

	Index	Season	MASE	MAE.PR	MAE.base	MASE.adj	n.eval
1	FISHERY	1	NA	NA	NA	NA	0

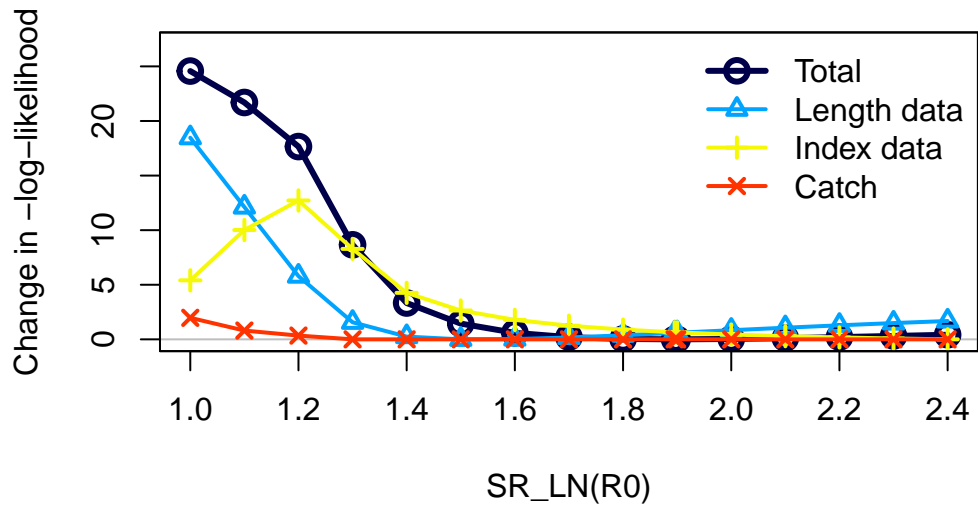
Recruitment Deviations

Likelihood Profile

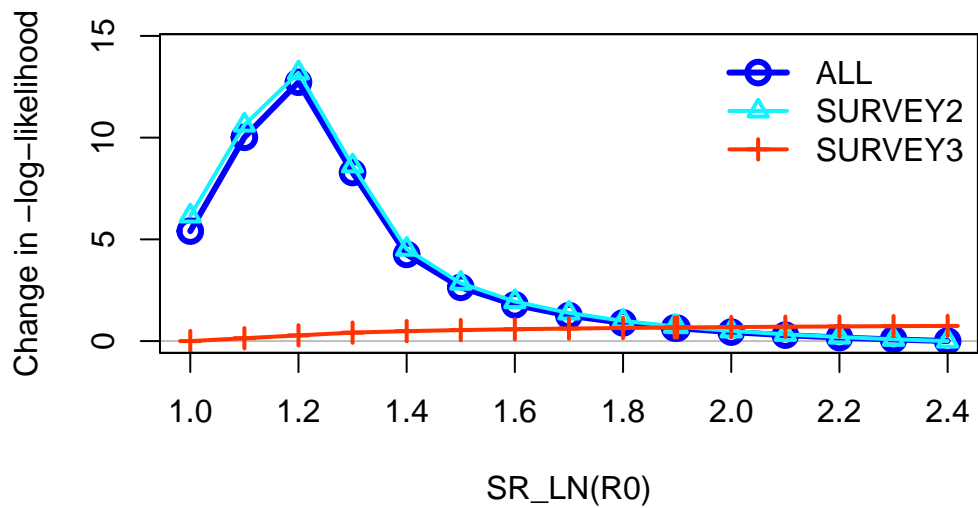
[1] "SR_LN"

	frac_change	include	label
TOTAL	1.0000	TRUE	Total
Catch	0.0803	TRUE	Catch
Equil_catch	0.0000	FALSE	Equilibrium catch
Survey	0.5177	TRUE	Index data
Length_comp	0.7515	TRUE	Length data
Recruitment	0.0000	FALSE	Recruitment
InitEQ_Regime	0.0000	FALSE	Initital equilibrium recruitment
Forecast_Recruitment	0.0000	FALSE	Forecast recruitment

Parm_priors	0.0035	FALSE	Priors
Parm_softbounds	0.0000	FALSE	Soft bounds
Parm_devs	0.0000	FALSE	Parameter deviations
Crash_Pen	0.0000	FALSE	Crash penalty

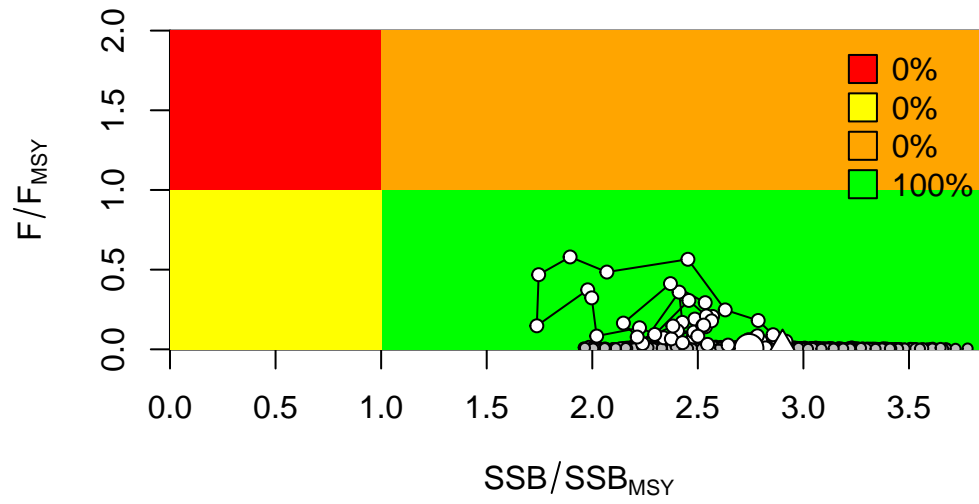


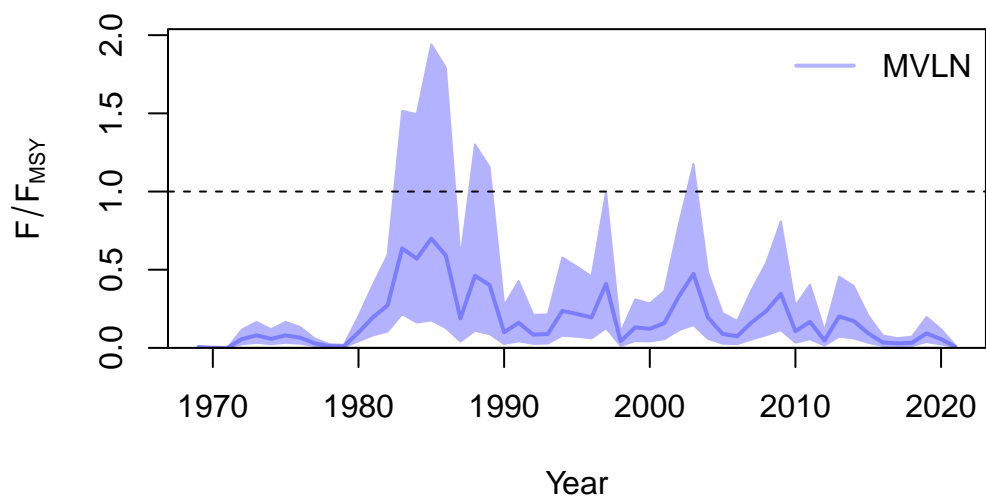
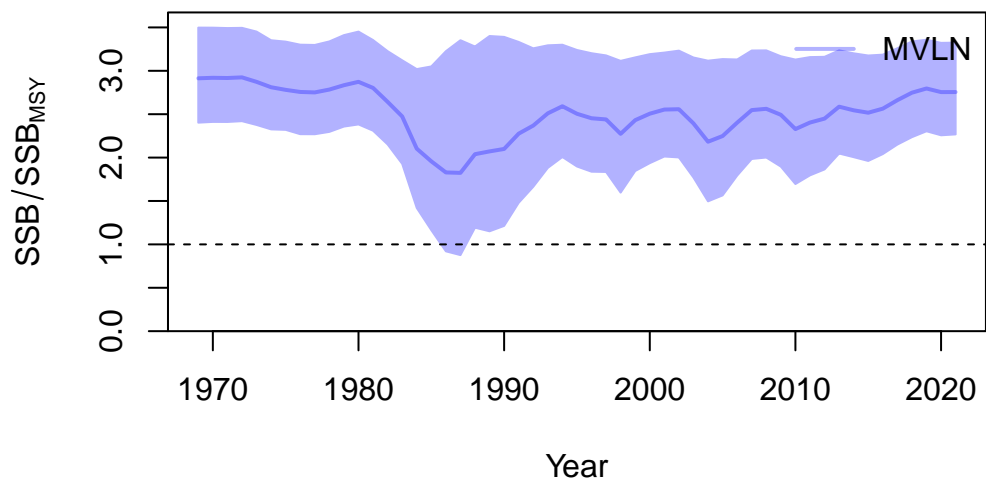
Changes in survey likelihood by fleet

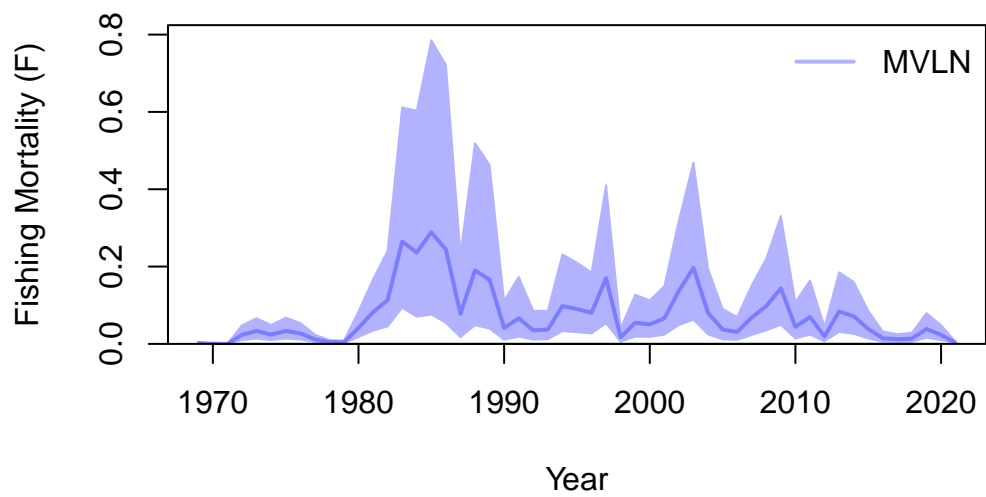
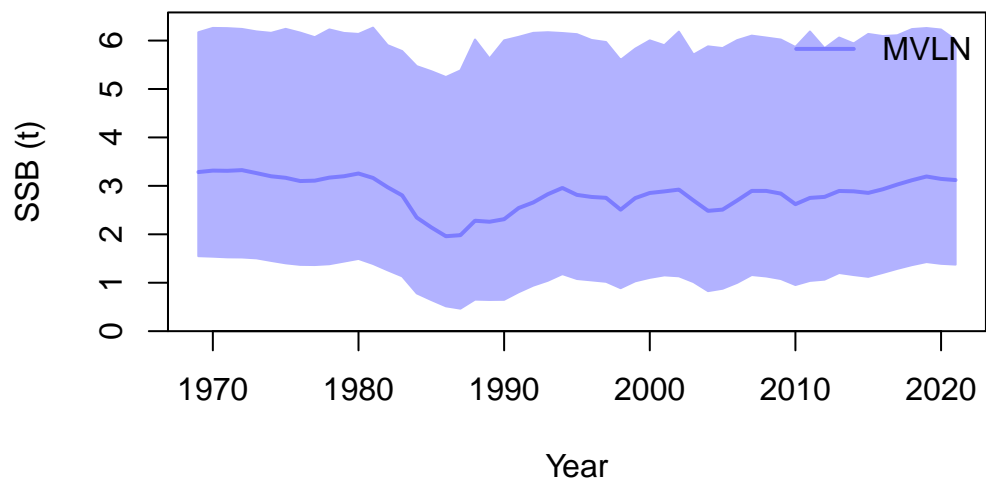


Management Quantities

starter.sso with Bratio: SSB/SSB_{MSY} and F: _{abs_F}







null device
1

Jitter

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[1] "No jitter runs were found."
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Selectivity and Maturity

