

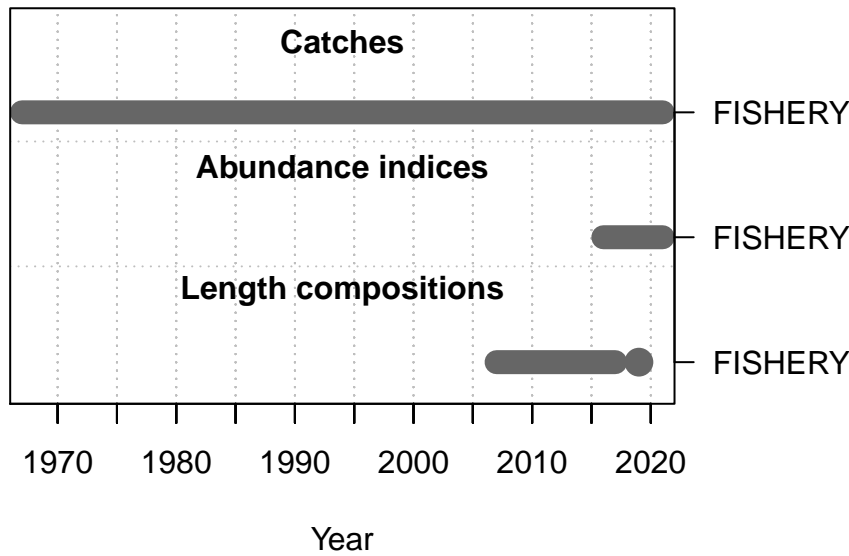
American Samoa Model Checks

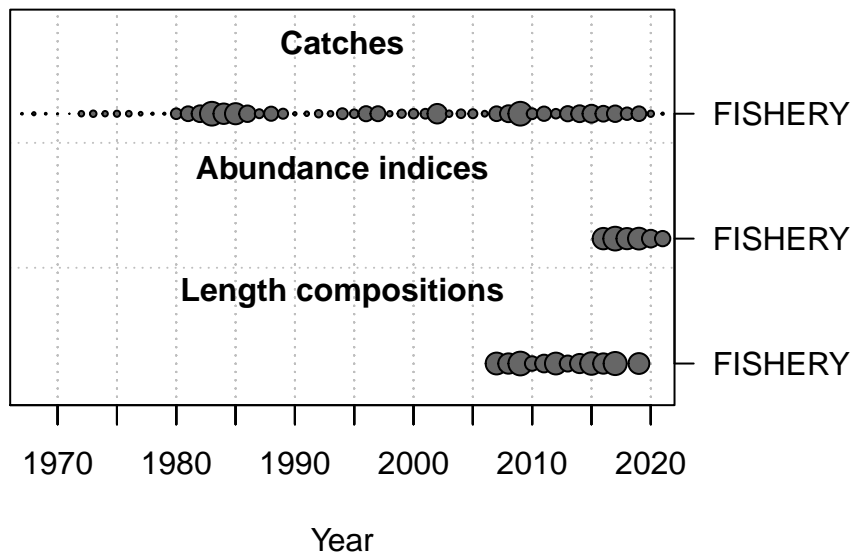
2022-10-16

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

Model Output

Input Data





Convergence Check

```

Converged    MaxGrad
1      TRUE 3.1613e-05

```

```

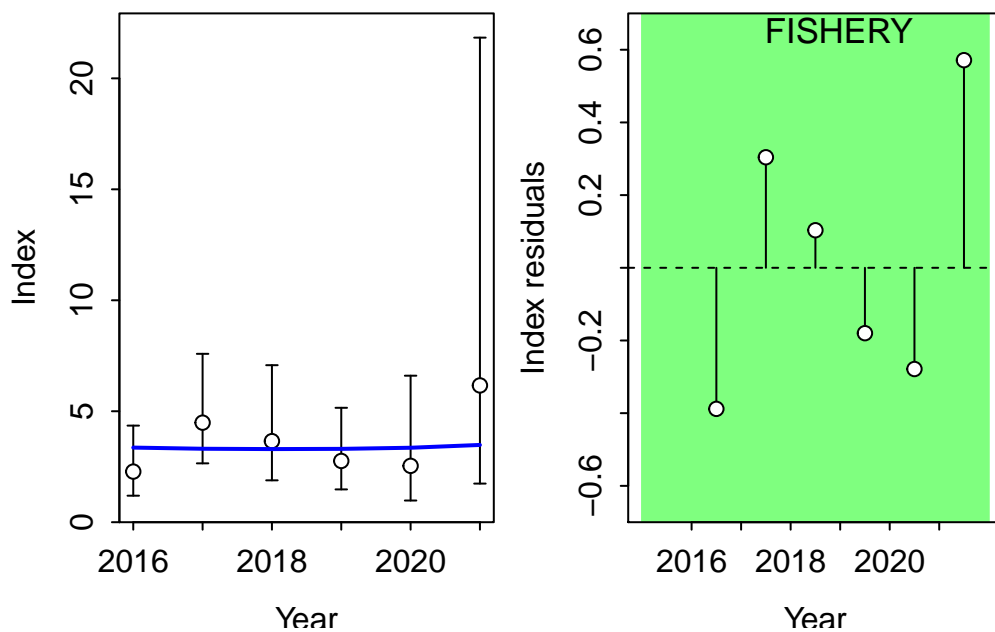
[1] "1 NOTE: Max data length bin: 90 < max pop len bins: 100; so will accumulate larger pop
[2] "N warnings: 1"

```

Fit to Model

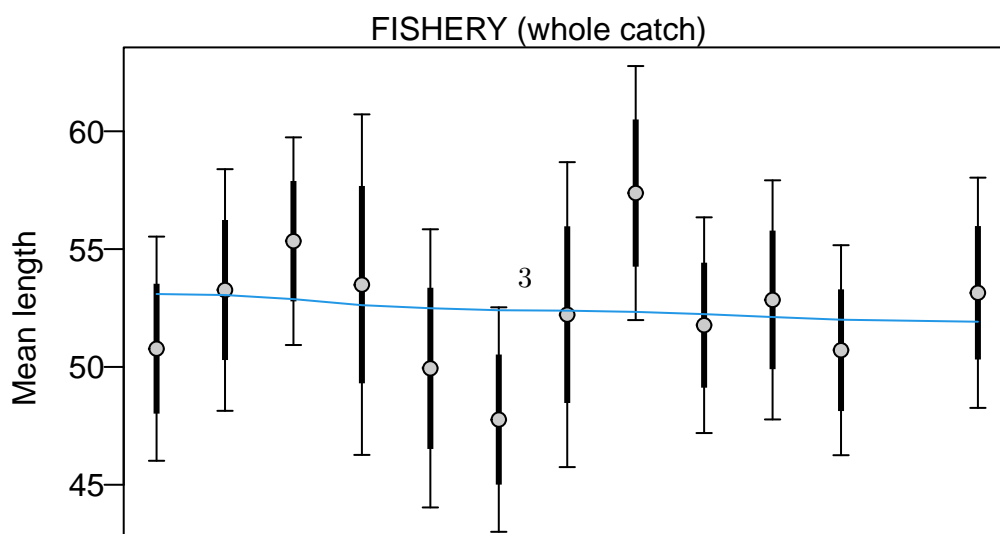
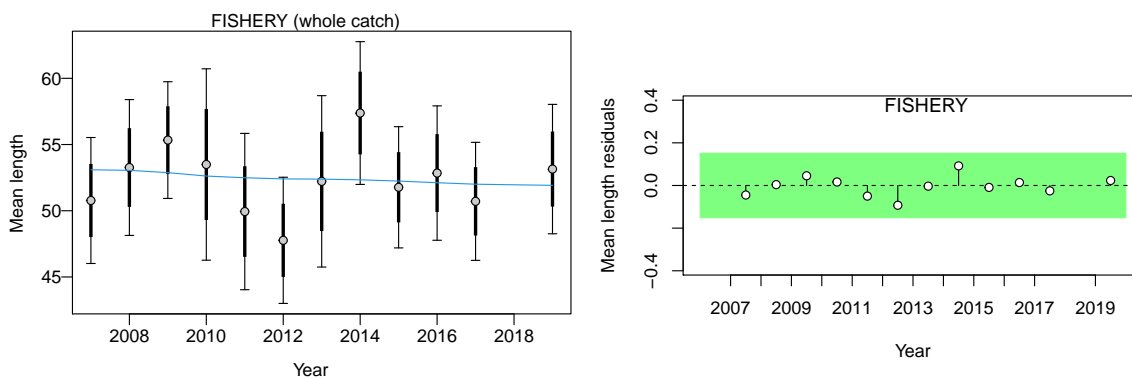
CPUE

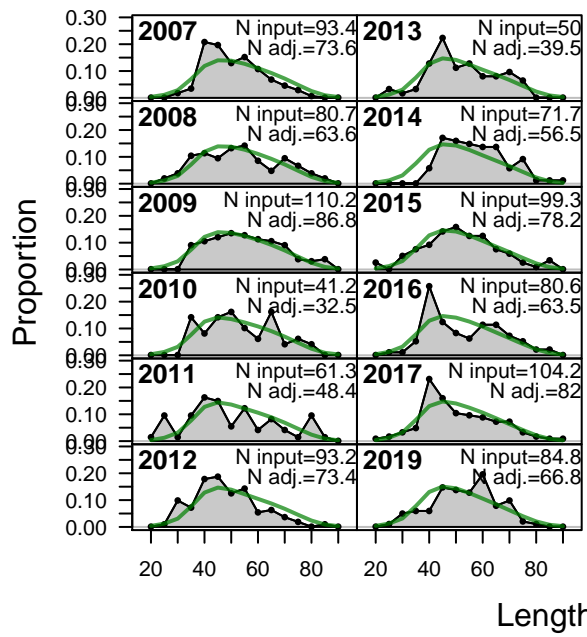
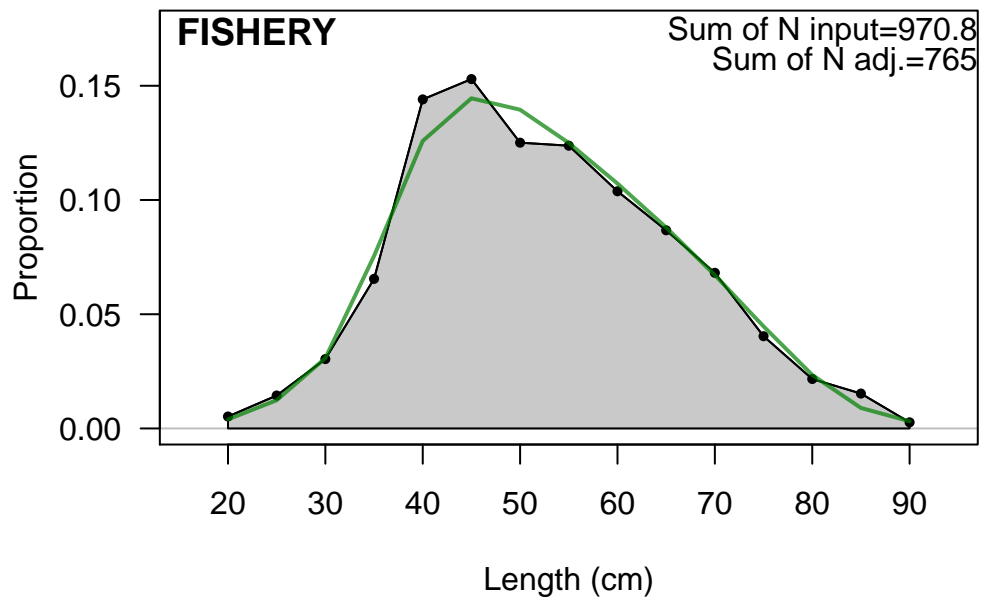
Fleet	RMSE.perc	Nobs
FISHERY	33.9	6
Combined	33.9	6



Length Comp

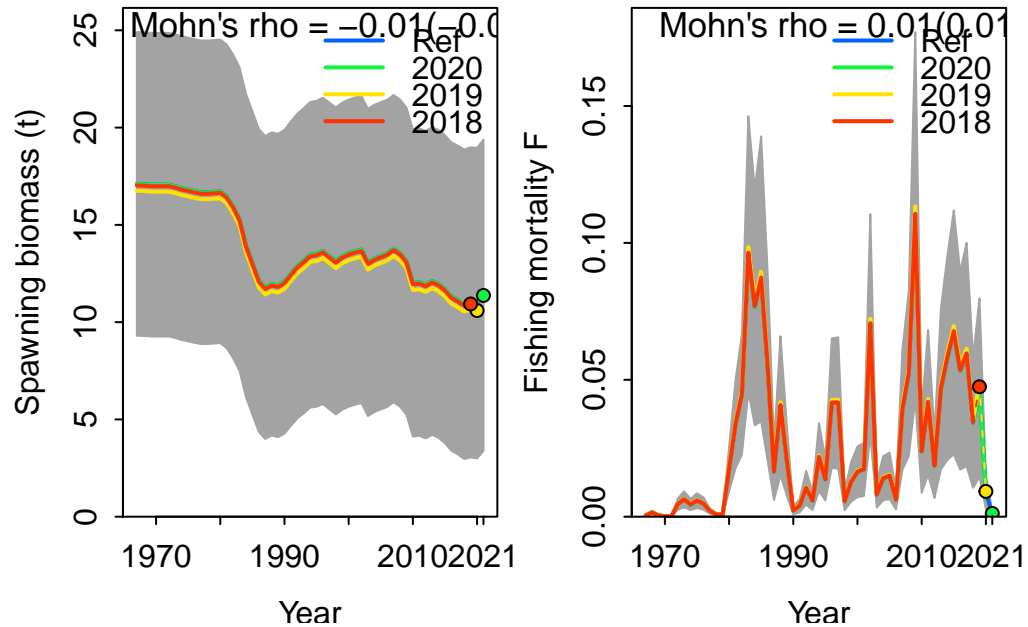
Fleet	RMSE.perc	Nobs
FISHERY	4.6	12
Combined	4.6	12





Retrospective

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



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

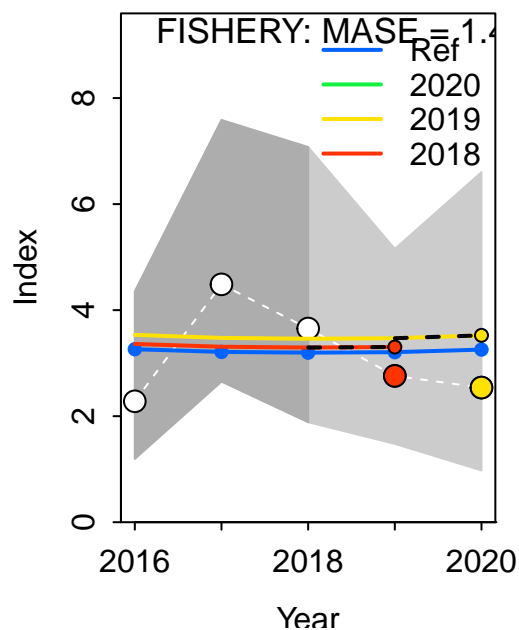
	type	peel	Rho	ForecastRho
1	F	2020	0.0008493359	0.0008270888
2	F	2019	0.0354041445	0.0349796406
3	F	2018	0.0069902335	0.0069823839
4	F Combined		0.0144145713	0.0142630378

Hindcasting

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

Computing MASE with only 2 of 3 prediction residuals for Index FISHERY

Warning: Unequal spacing of naive predictions residuals may influence the interpretation of



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:

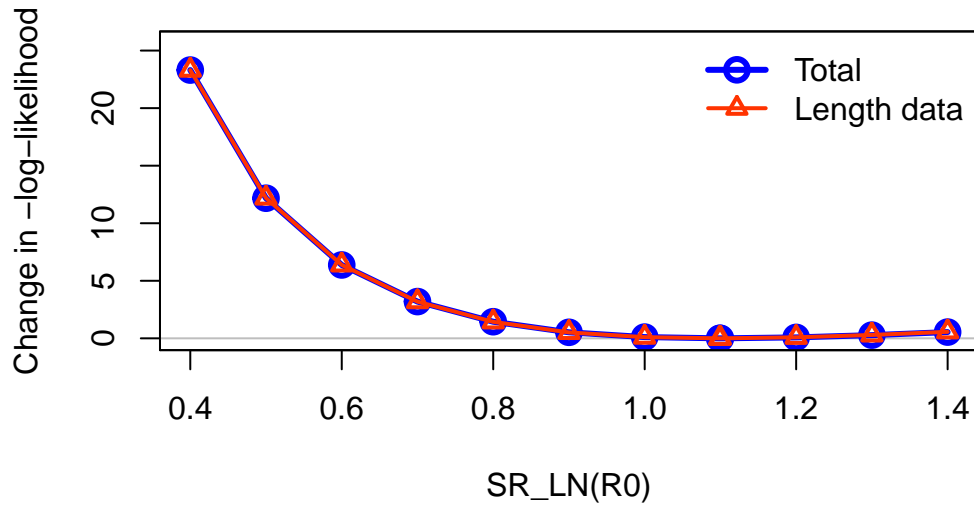
Recruitment Deviations

Likelihood Profile

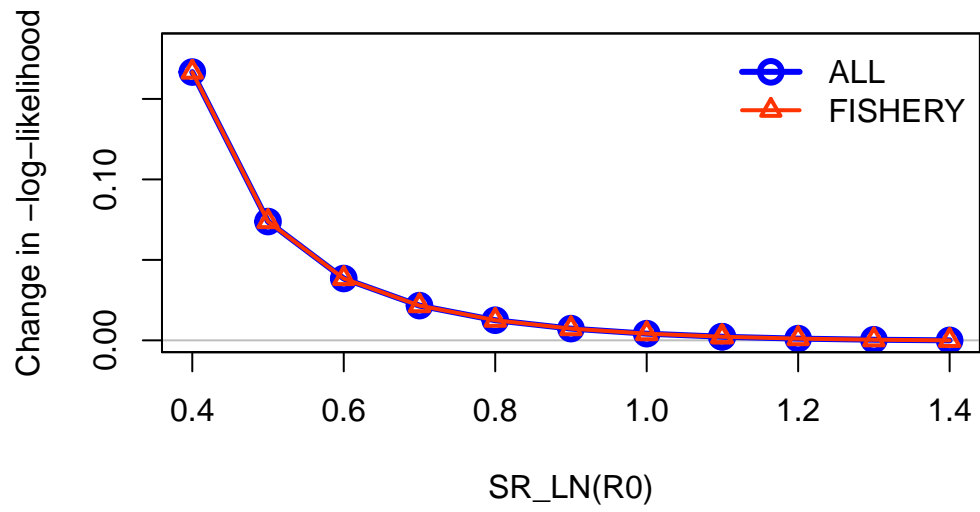
[1] "SR_LN"

	frac_change	include	label
TOTAL	1.0000	TRUE	Total
Catch	0.0000	FALSE	Catch
Equil_catch	0.0000	FALSE	Equilibrium catch
Survey	0.0072	FALSE	Index data
Length_comp	0.9997	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	0.0070	FALSE	Priors
Parm_softbounds	0.0000	FALSE	Soft bounds
Parm_devs	0.0000	FALSE	Parameter deviations
Crash_Pen	0.0000	FALSE	Crash penalty

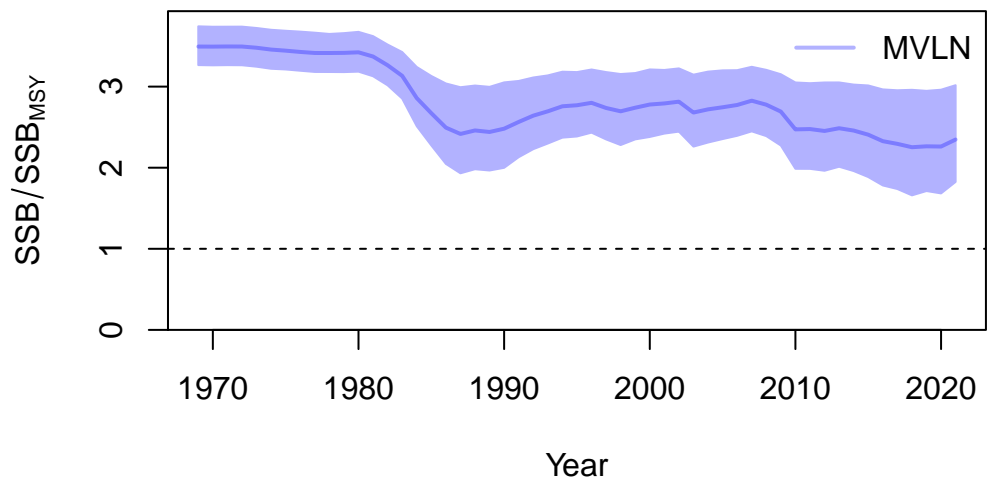
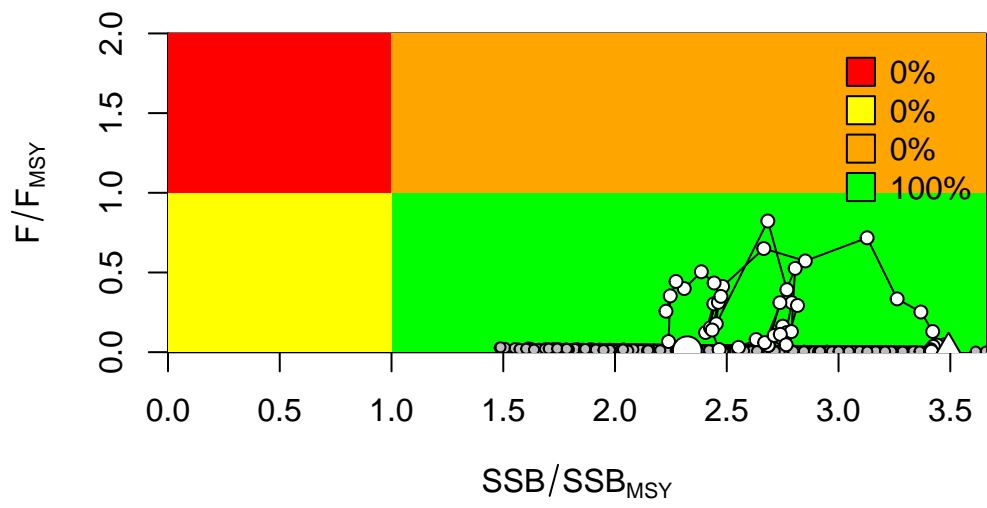


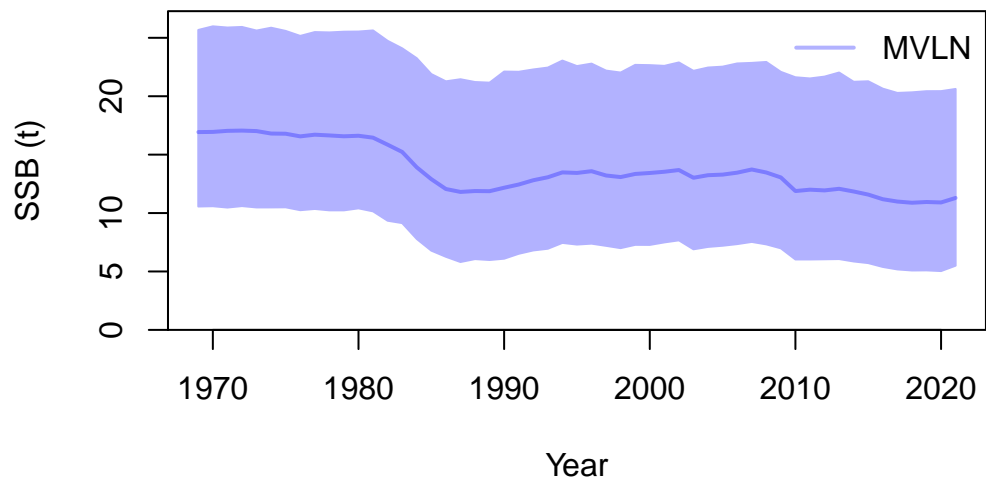
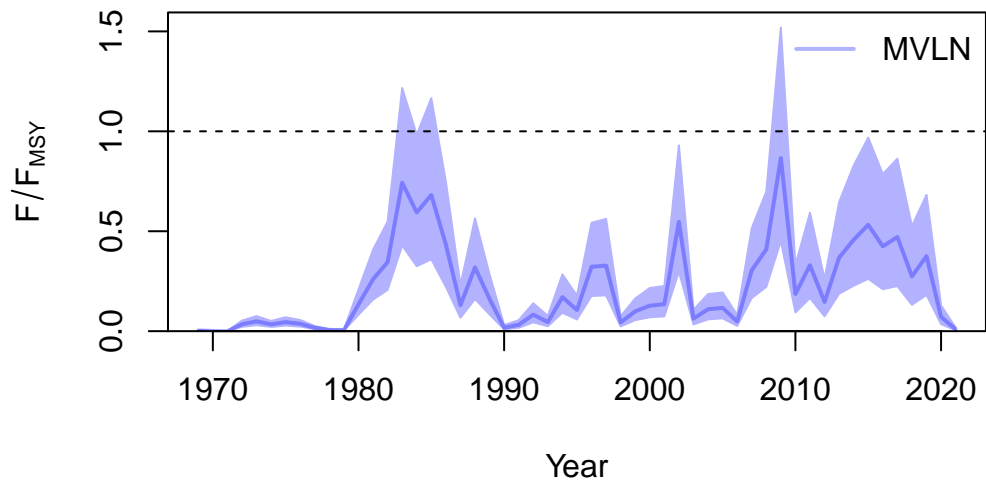
Changes in survey likelihood by fleet

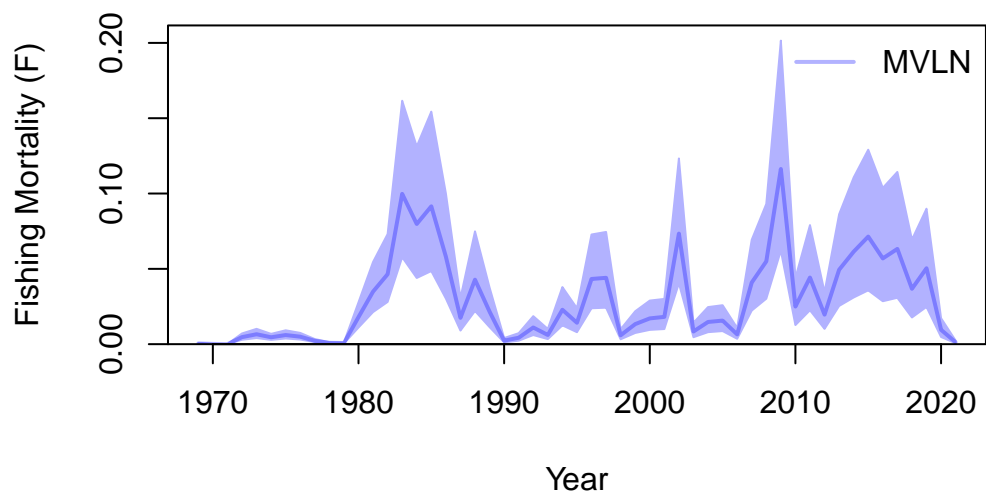


Management Quantities

starter.sso with Bratio: $SSB/SSBMSY$ and F: $_abs_F$







null device
1

Jitter

