

American Samoa Model Checks

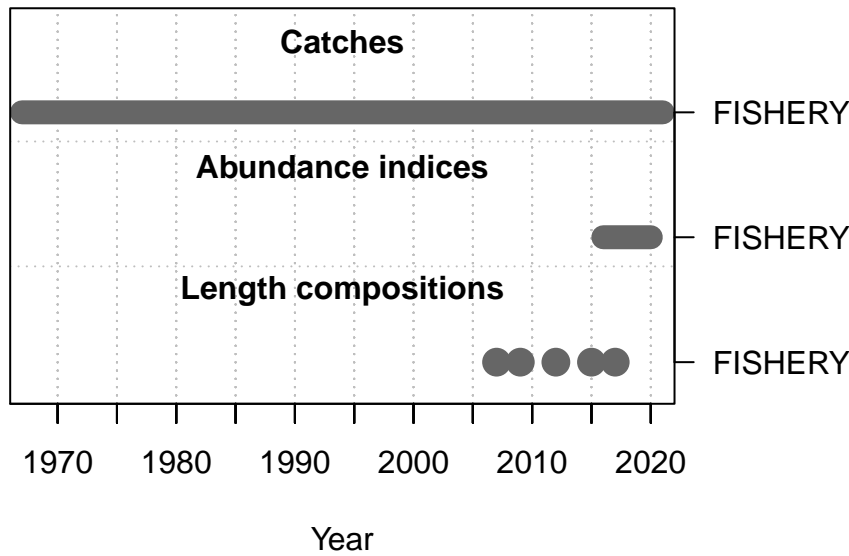
Marc Nadon and Meg Oshima

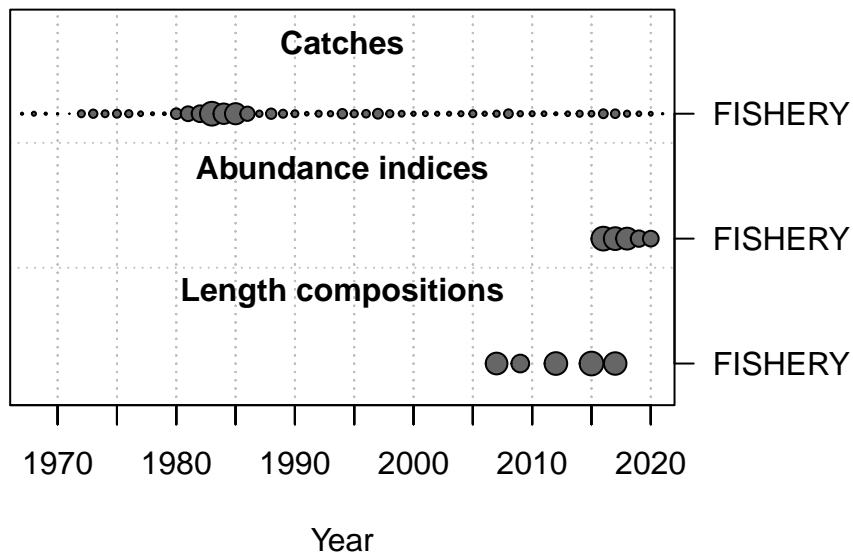
2023-02-15

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

Model Output

Input Data





Convergence Check

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Converged      MaxGrad
1      TRUE 5.20266e-05

```

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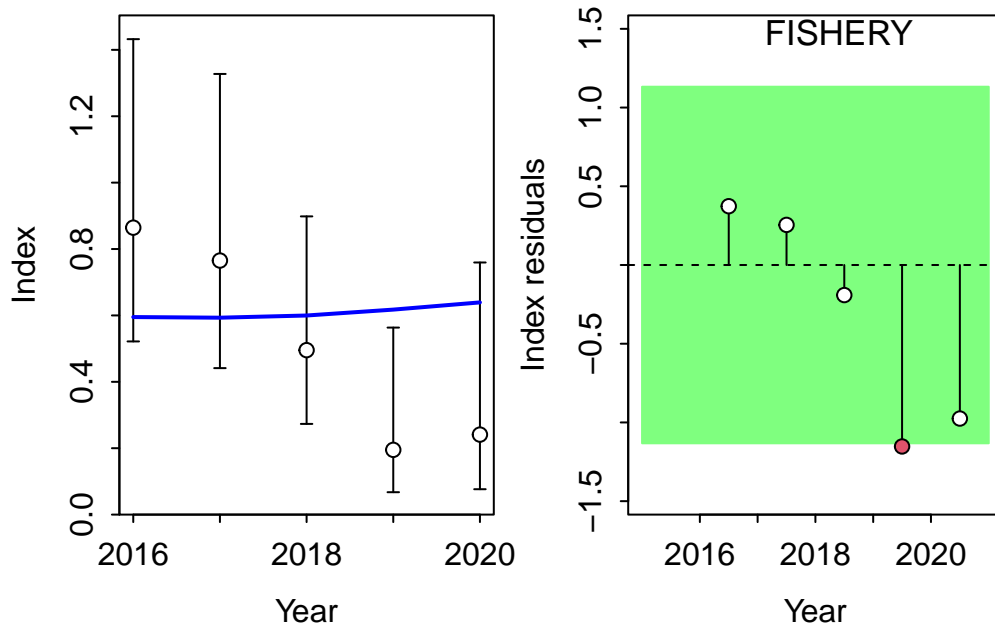
[1] "1 NOTE: Max data length bin: 40 < max pop len bins: 44; so will accumulate larger pop
[2] "N warnings: 1"

```

Fit to Model

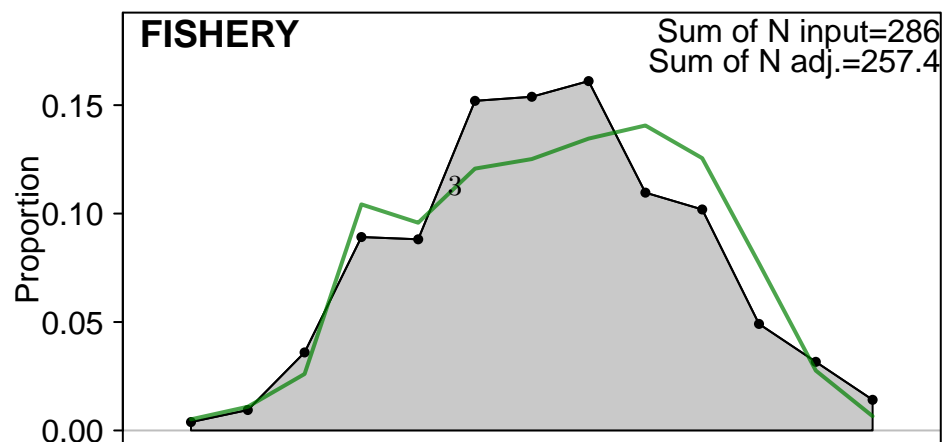
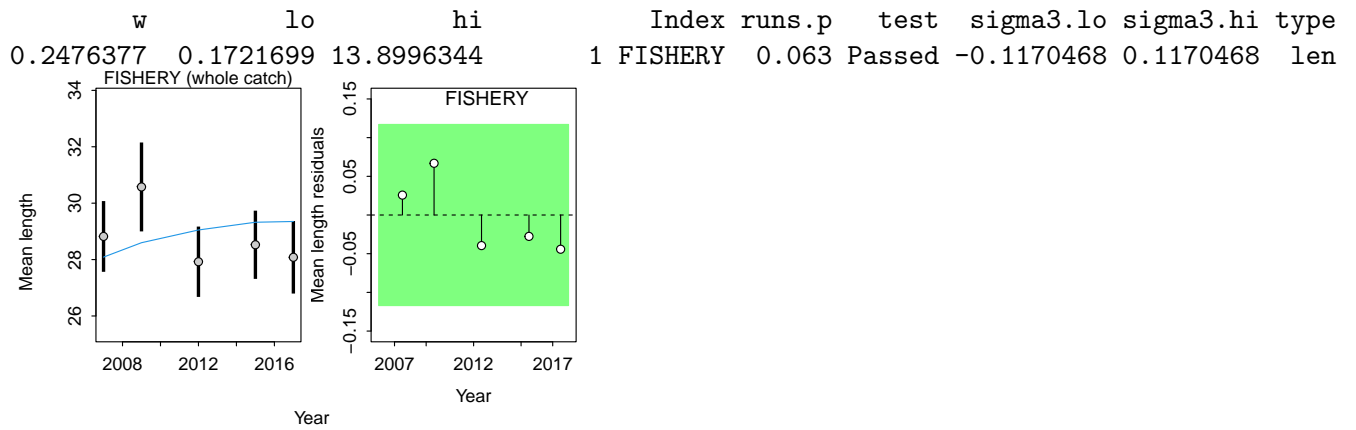
CPUE

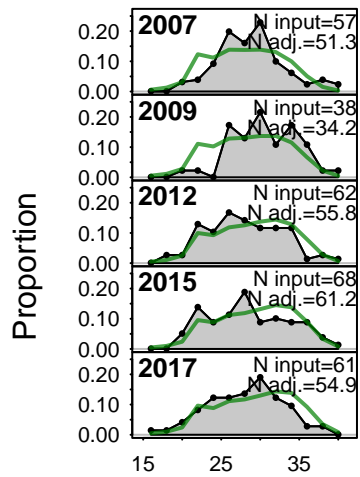
Fleet	RMSE.perc	Nobs
FISHERY	71	5
Combined	71	5



Length Comp

Fleet	RMSE.perc	Nobs
FISHERY	4.3	5
Combined	4.3	5

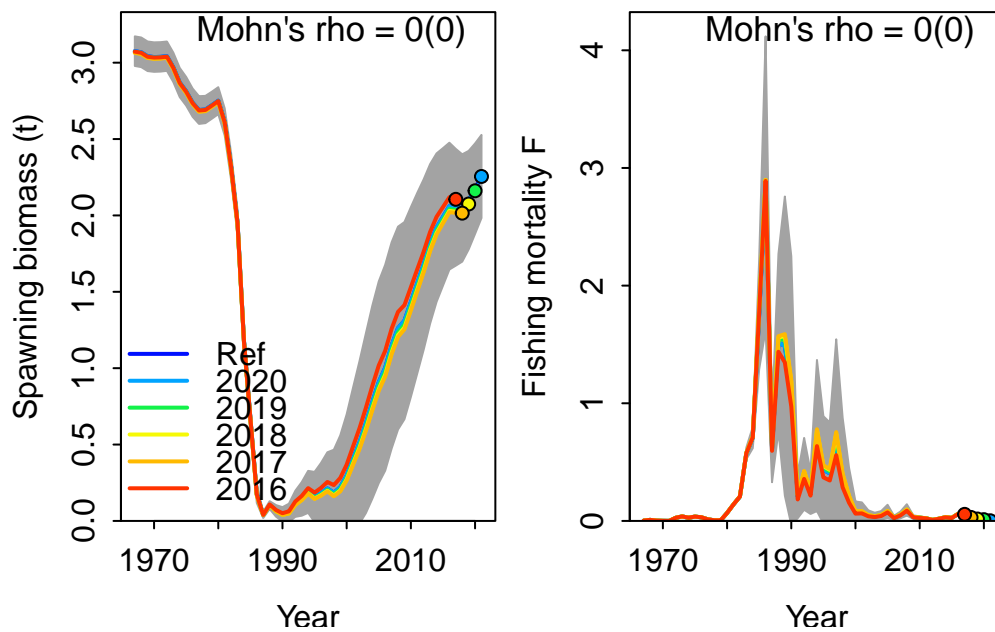




Length (cm)

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	0.007444215	0.006753475
3	F	2018	0.013727308	0.012500311
4	F	2017	0.018385765	0.017031713
5	F	2016	-0.025383450	-0.022893931
6	F Combined		0.002834768	0.002678314

Hindcasting

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

Computing MASE with only 4 of 5 prediction residuals for Index FISHERY

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

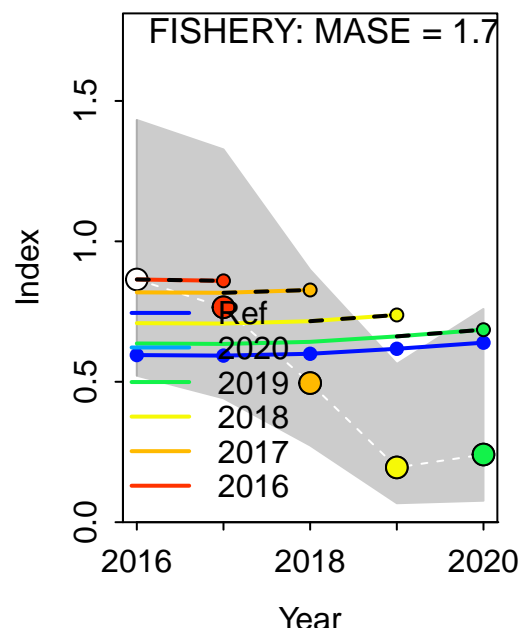
MASE stats by Index:

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

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

MASE stats by Index:

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

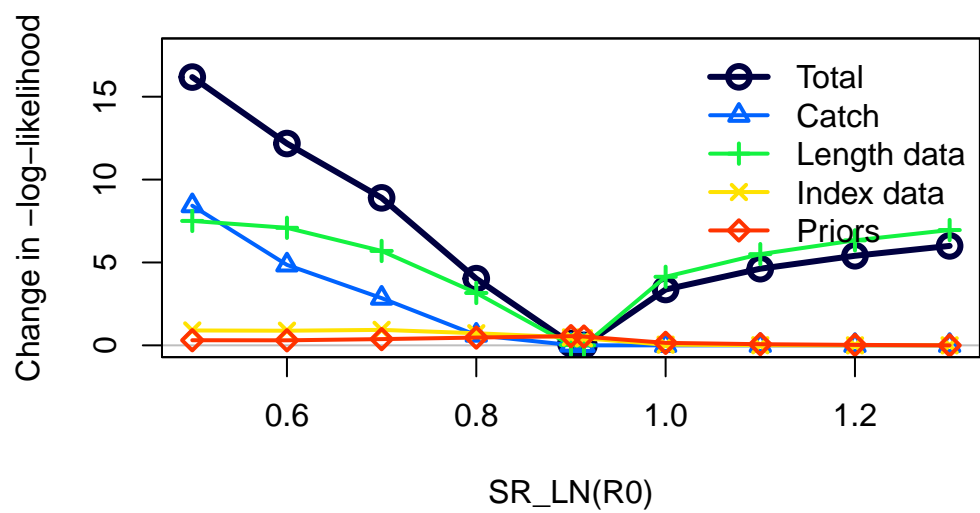


Recruitment Deviations

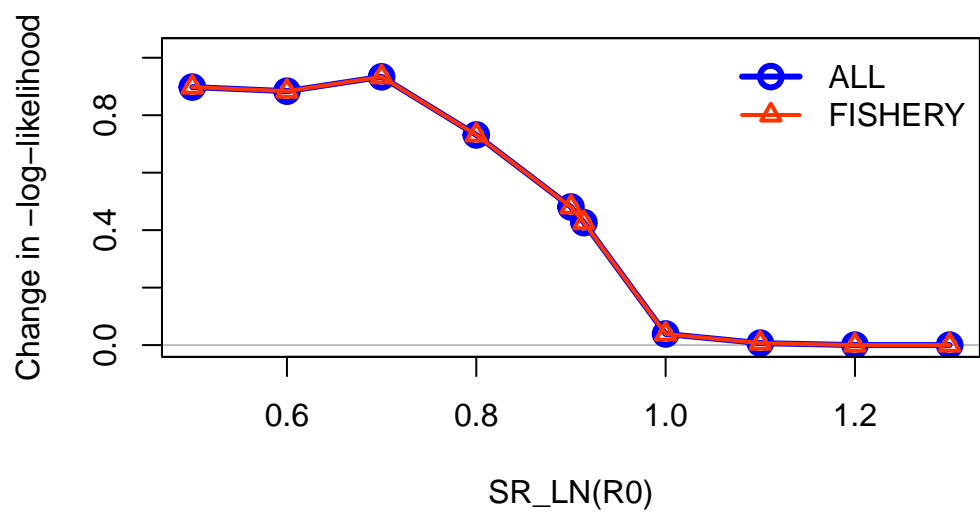
Likelihood Profile

[1] "SR_LN"

	frac_change	include	label
TOTAL	1.0000	TRUE	Total
Catch	0.5207	TRUE	Catch
Equil_catch	0.0000	FALSE	Equilibrium catch
Survey	0.0577	TRUE	Index data
Length_comp	0.4638	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	0.0344	TRUE	Priors
Parm_softbounds	0.0000	FALSE	Soft bounds
Parm_devs	0.0000	FALSE	Parameter deviations
Crash_Pen	0.0000	FALSE	Crash penalty

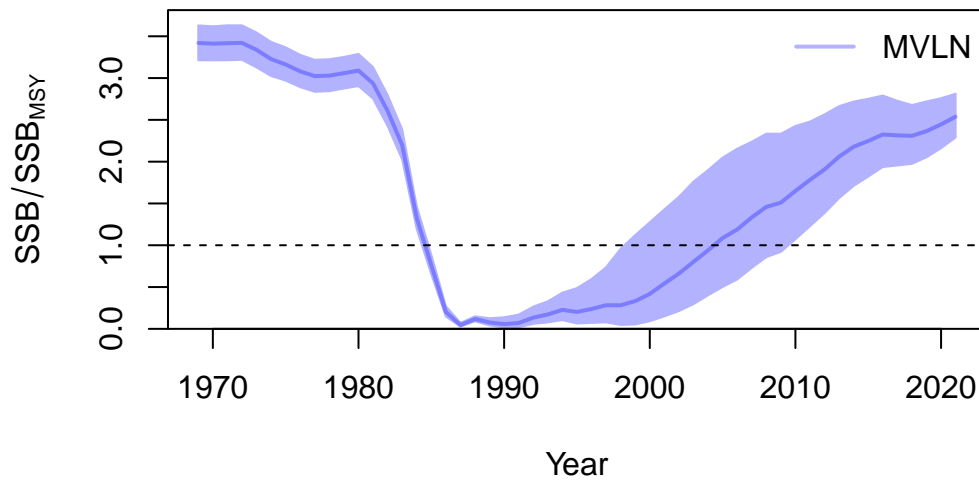
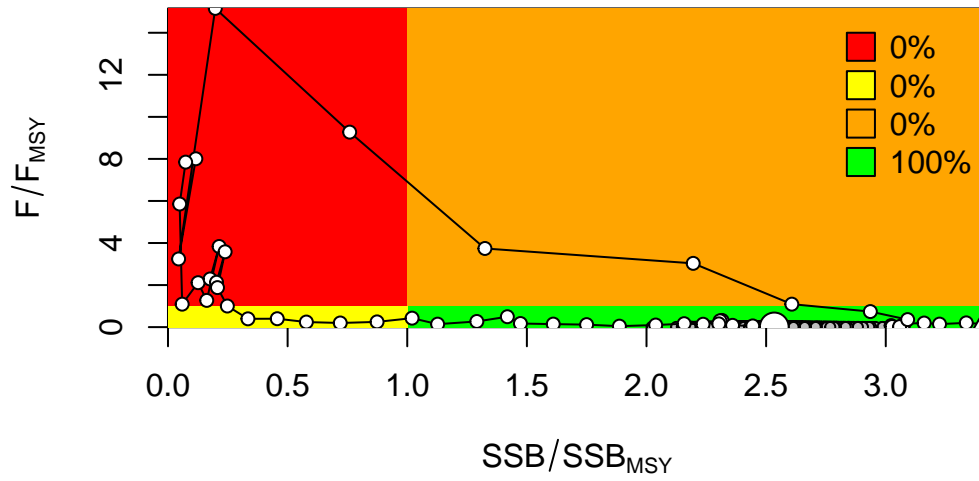


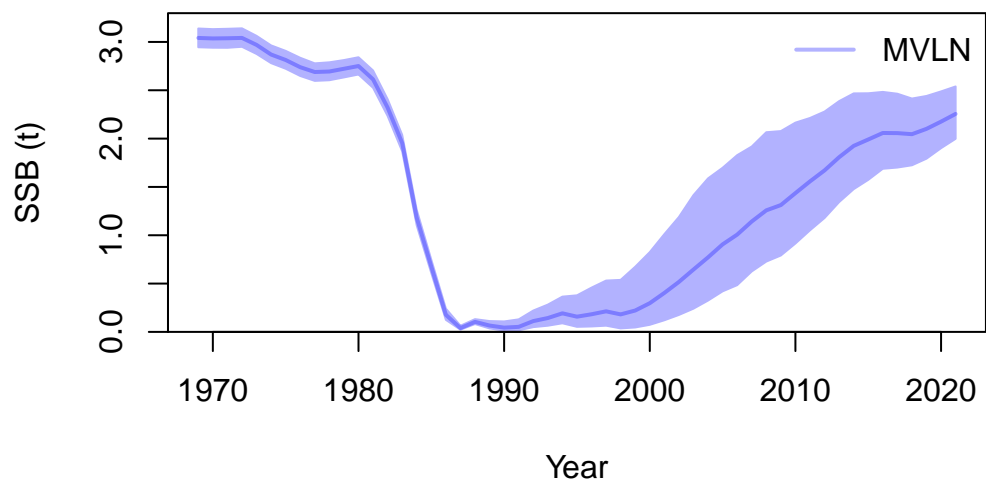
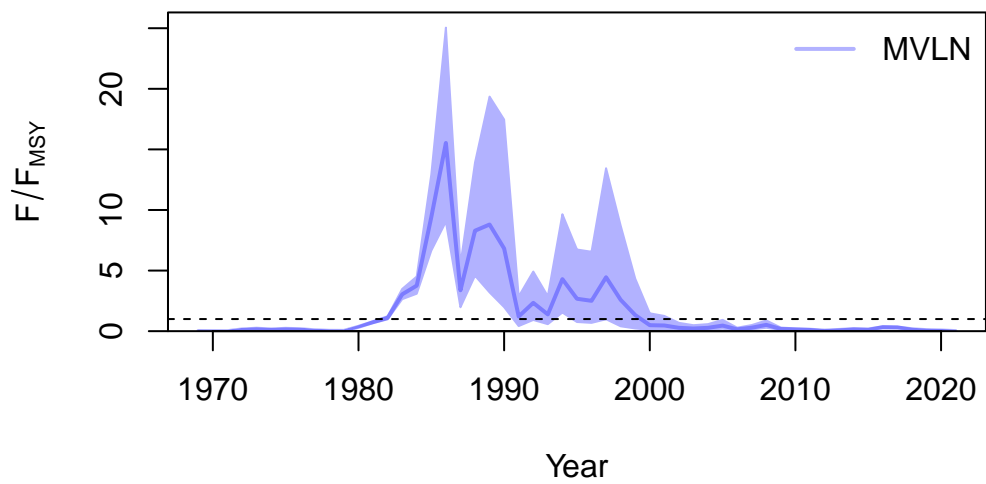
Changes in survey likelihood by fleet

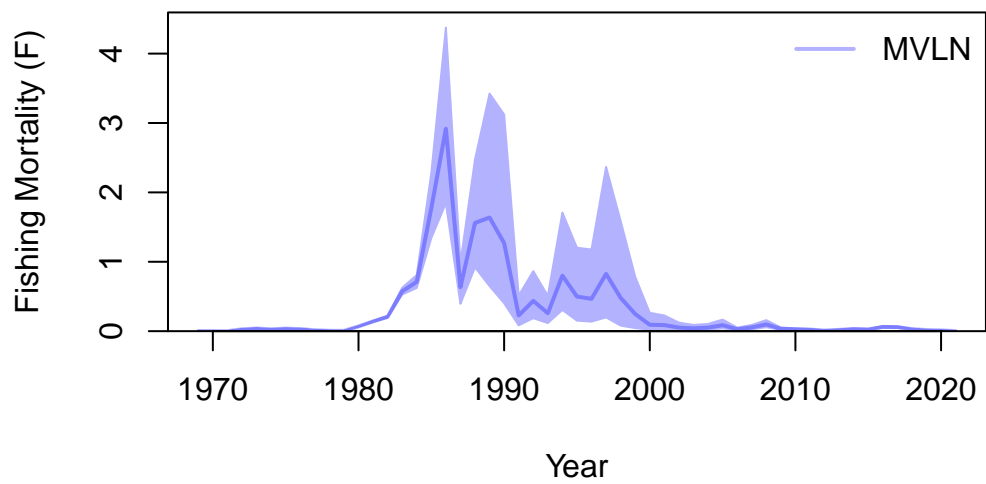


Management Quantities

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

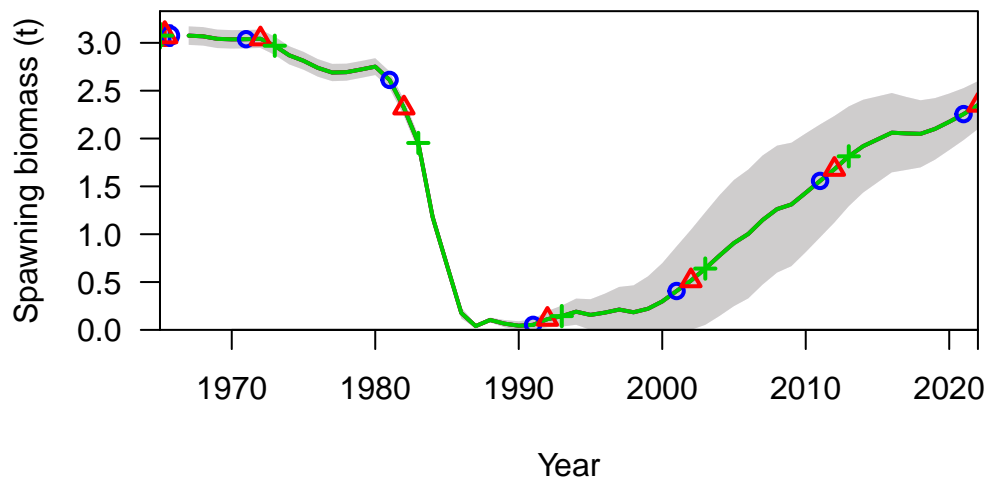
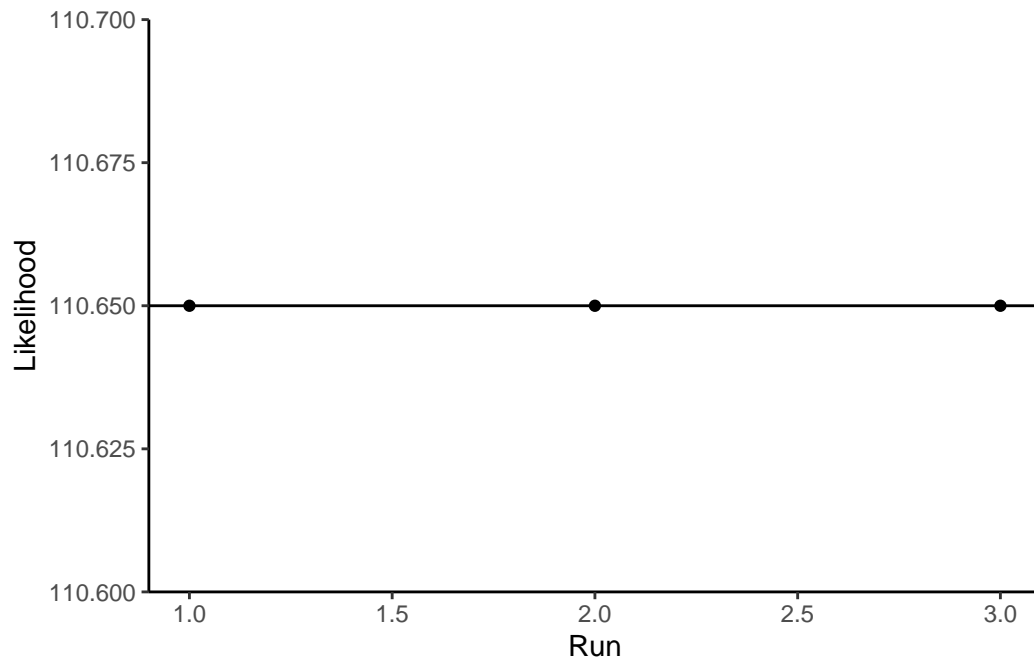


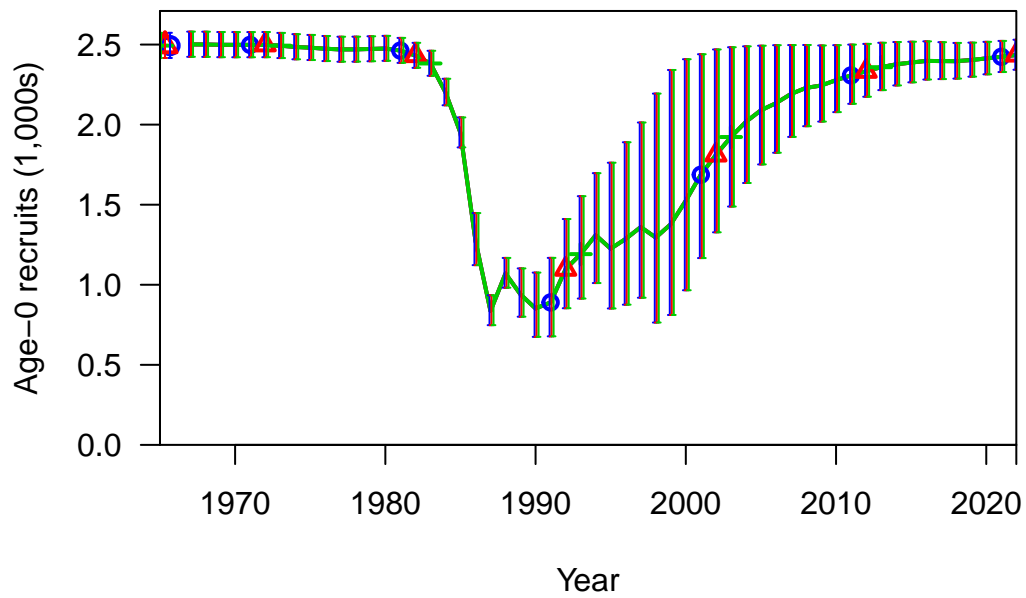
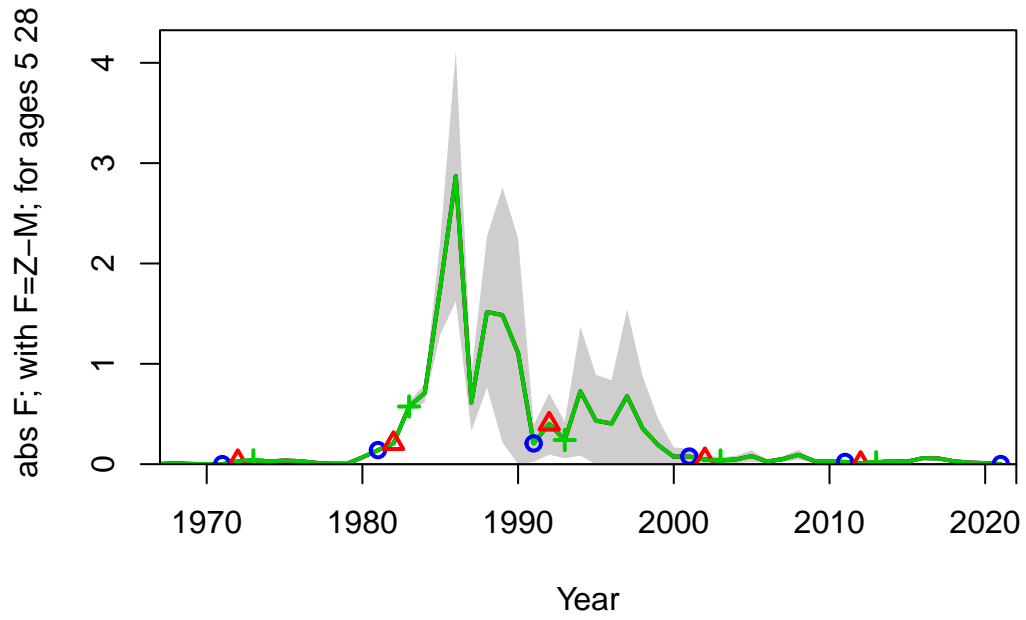




null device
1

Jitter





Selectivity and Maturity

