

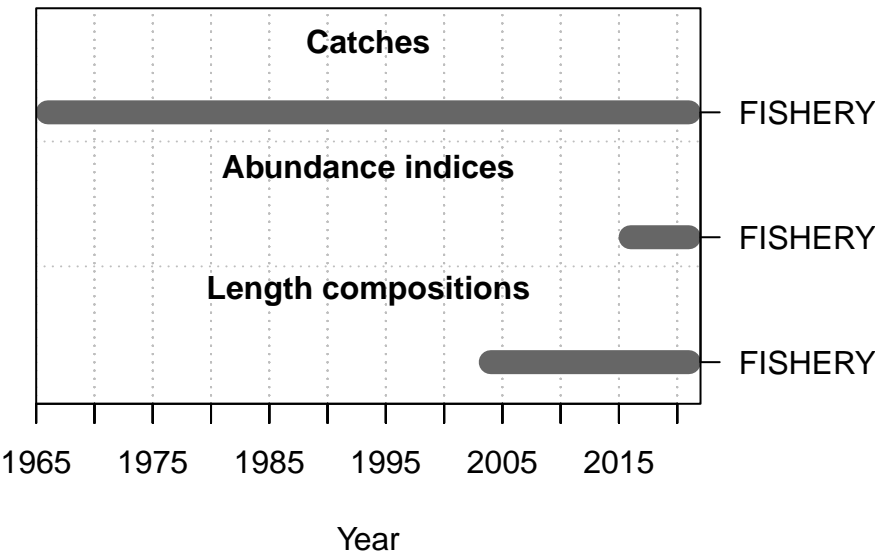
American Samoa Model Checks

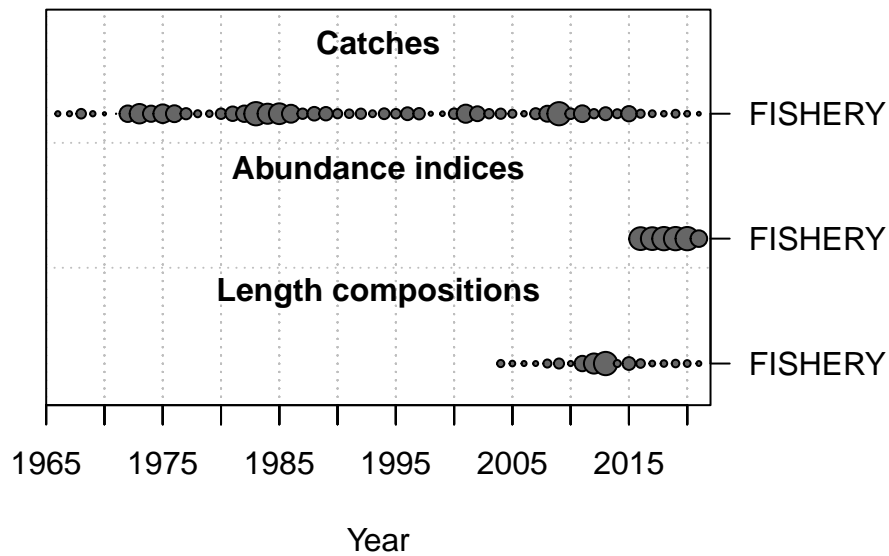
2022-08-24

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

Model Output

Input Data





Convergence Check

```

Converged    MaxGrad
1      TRUE 8.2864e-05

```

```

[1] "1 NOTE: Max data length bin: 38.5 < max pop len bins: 43; so will accumulate larger p
[2] "2 parameter init value is greater than parameter max 0.8 > 0.6 for parm: 14 ; search fo
[3] "N warnings: 2"

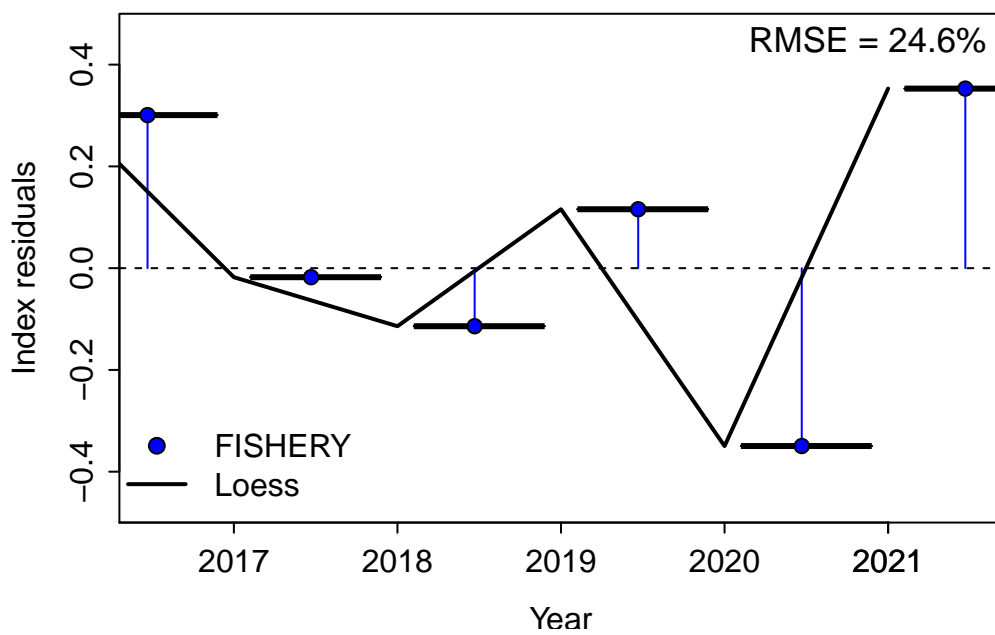
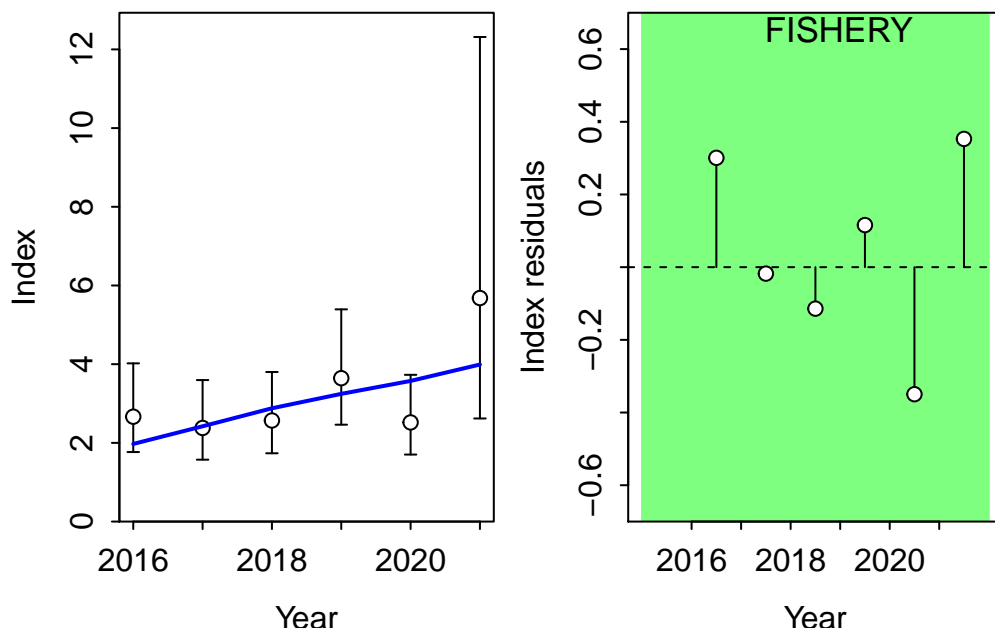
```

Fit to Model

CPUE

Residual Runs Test (/w plot) stats by Index:

RMSE stats by Index:



Length Comp

#Factor	Fleet	New_Var_adj	Type	Name
4	1	0.295194	len	FISHERY

Residual Runs Test (/w plot) stats by Mean length:

```

      Index runs.p  test  sigma3.lo  sigma3.hi type
1 FISHERY  0.166 Passed -0.03552188 0.03552188 len

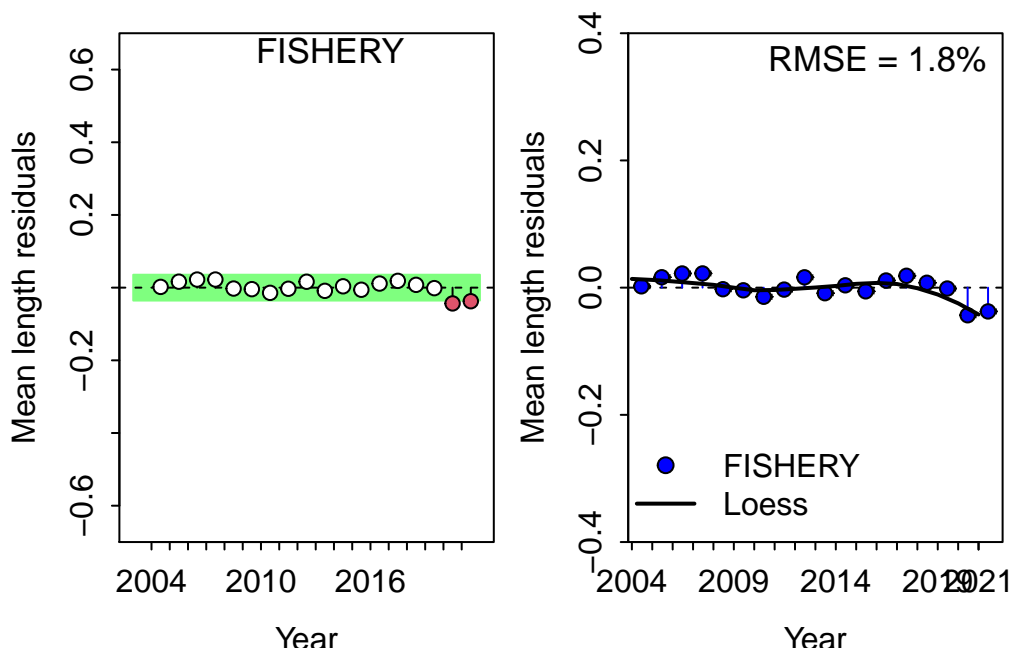
```

RMSE stats by Index:

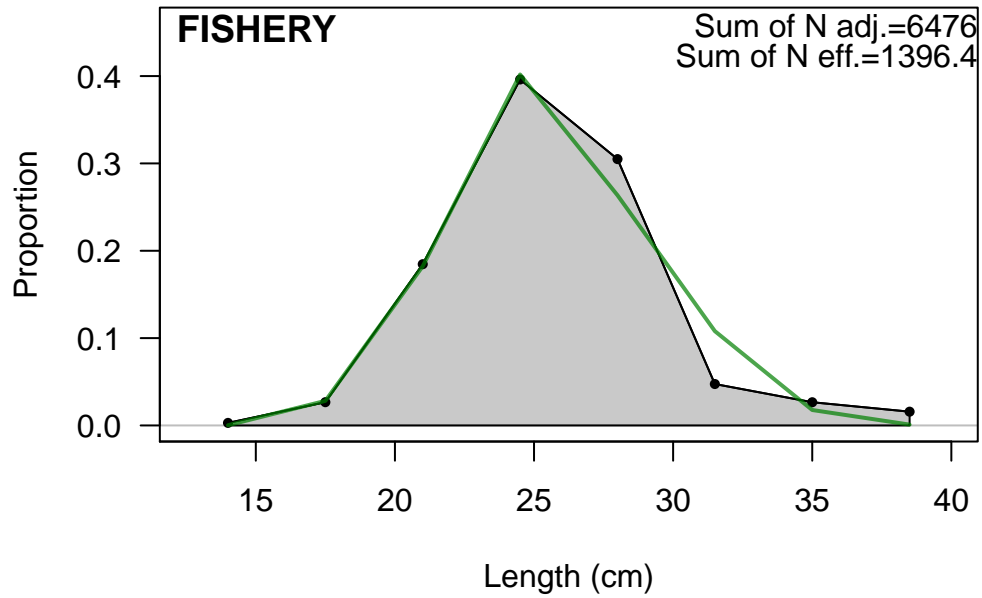
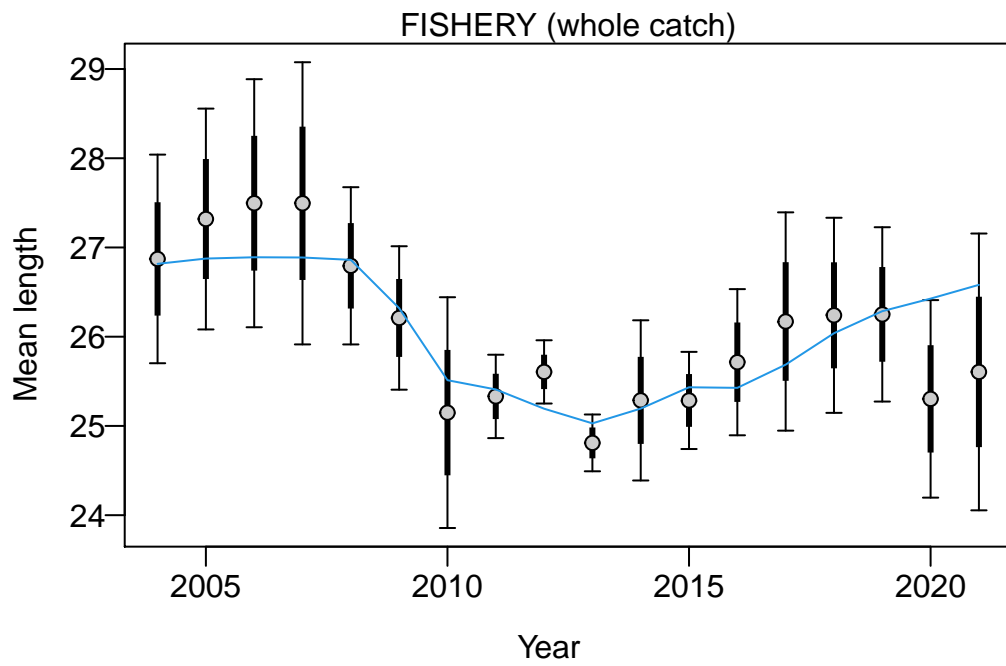
```

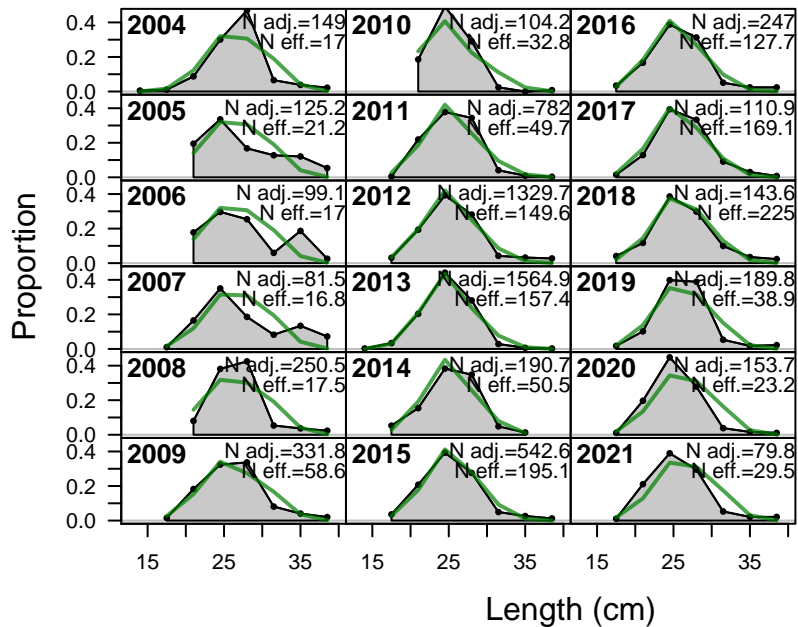
# A tibble: 2 x 3
  Fleet    RMSE.perc  Nobs
  <chr>      <dbl> <int>
1 FISHERY      1.8     18
2 Combined      1.8     18

```



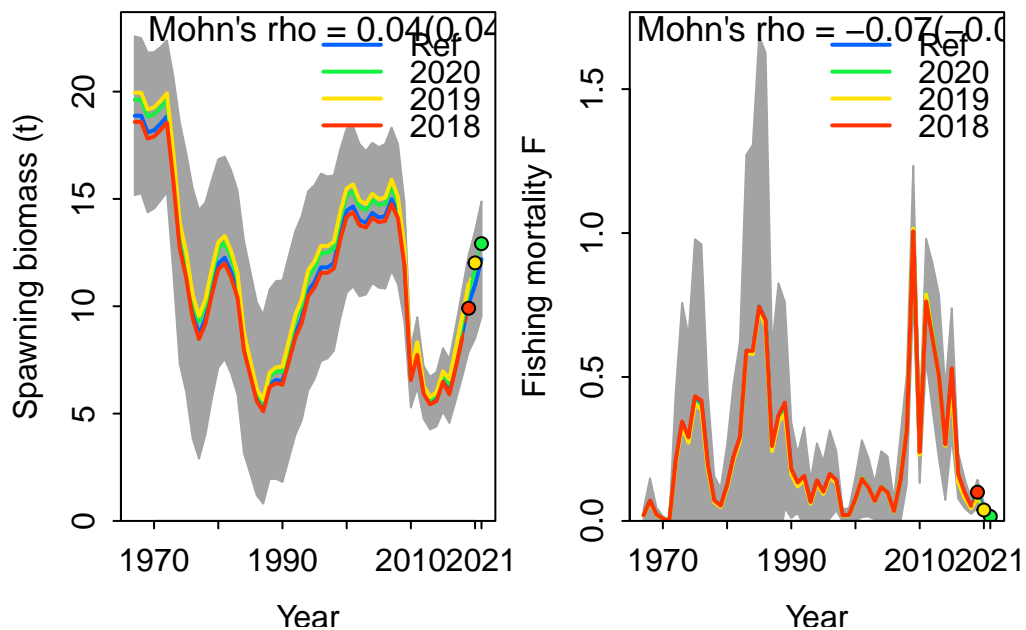
Retrospective and Hindcasting





Retrospective

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



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

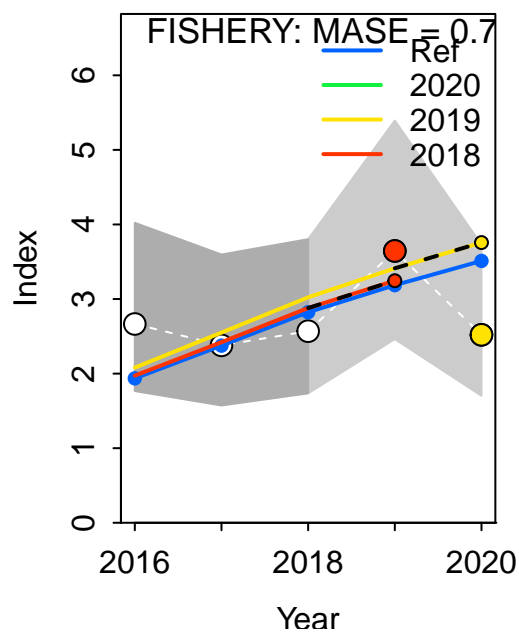
	type	peel	Rho	ForecastRho
1	F	2020	-0.06612327	-0.05002369
2	F	2019	-0.16757256	-0.09314577
3	F	2018	0.03539628	0.06656372
4	F Combined		-0.06609985	-0.02553525

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



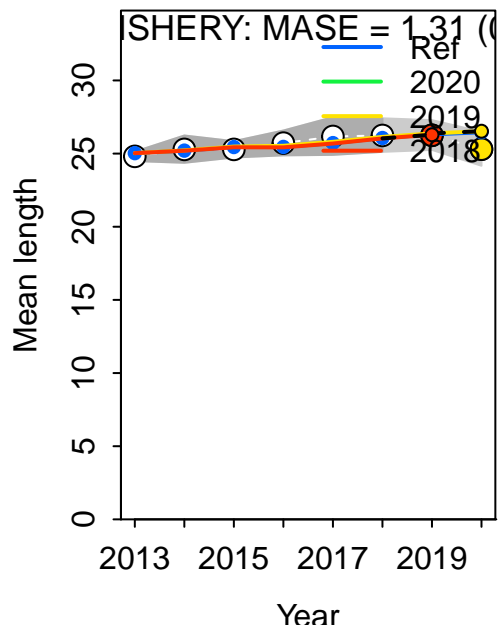
MASE stats by Index:

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

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:



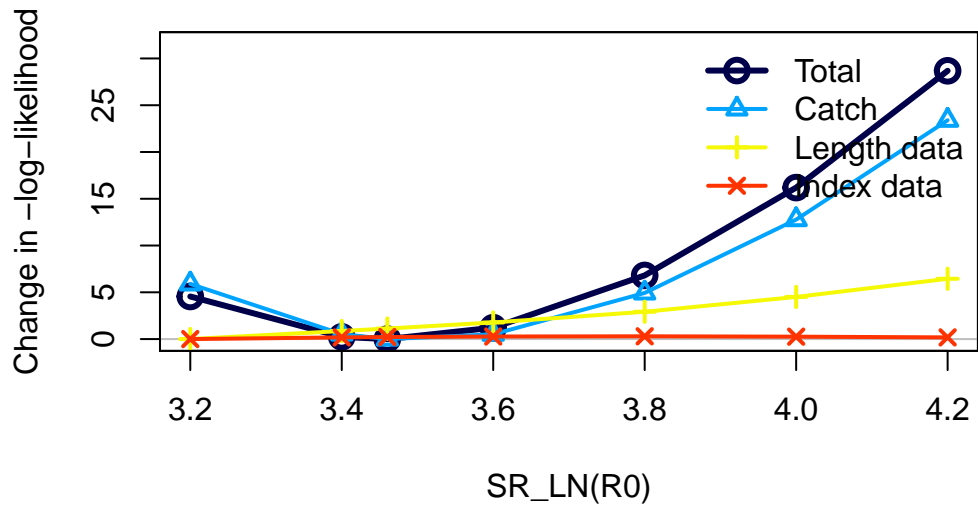
Recruitment Deviations

Likelihood Profile

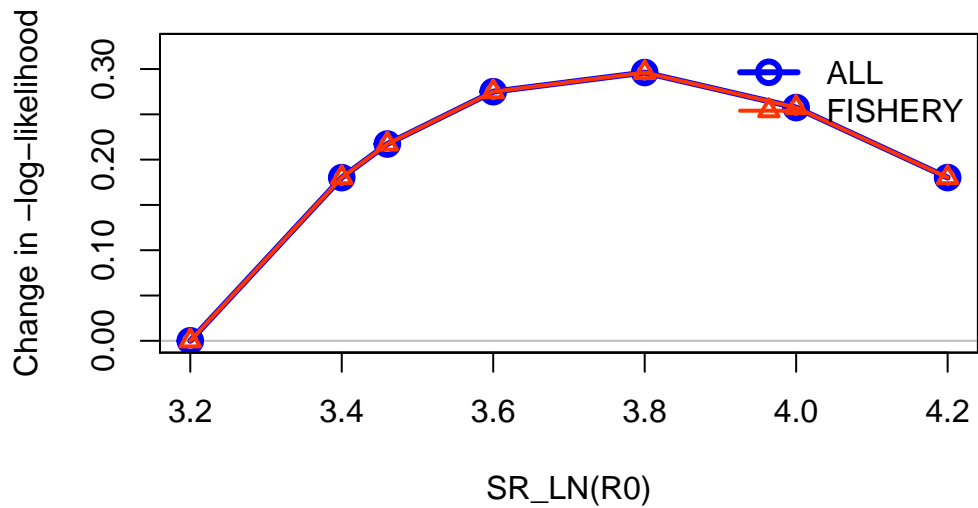
[1] "SR_LN"

	frac_change	include	label
TOTAL	1.0000	TRUE	Total
Catch	0.8157	TRUE	Catch
Equil_catch	0.0000	FALSE	Equilibrium catch
Survey	0.0103	TRUE	Index data
Length_comp	0.2248	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	0.0000	FALSE	Priors

Parm_softbounds	0.0000	FALSE	Soft bounds
Parm_devs	0.0000	FALSE	Parameter deviations
Crash_Pen	0.0000	FALSE	Crash penalty

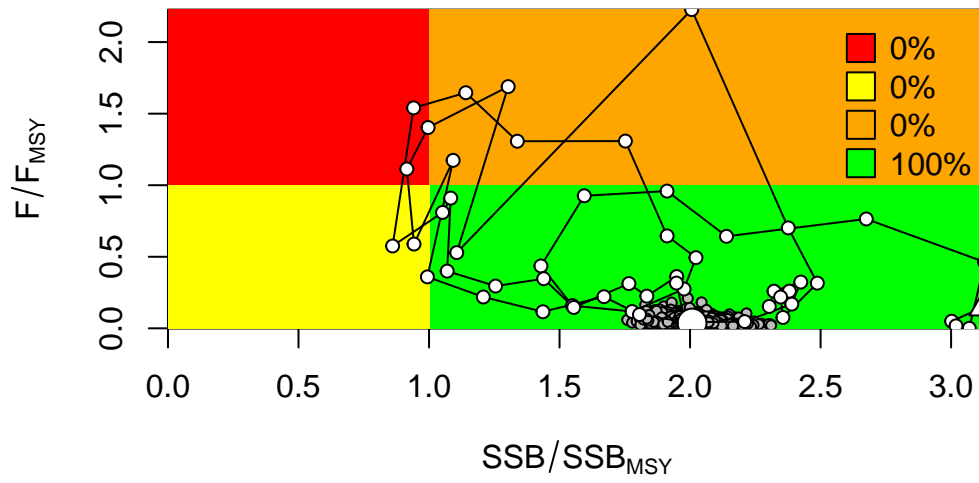


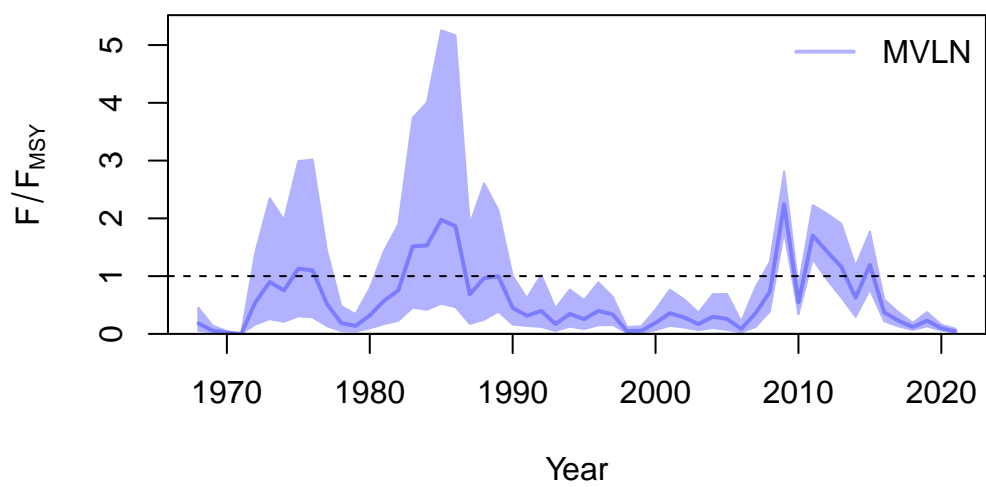
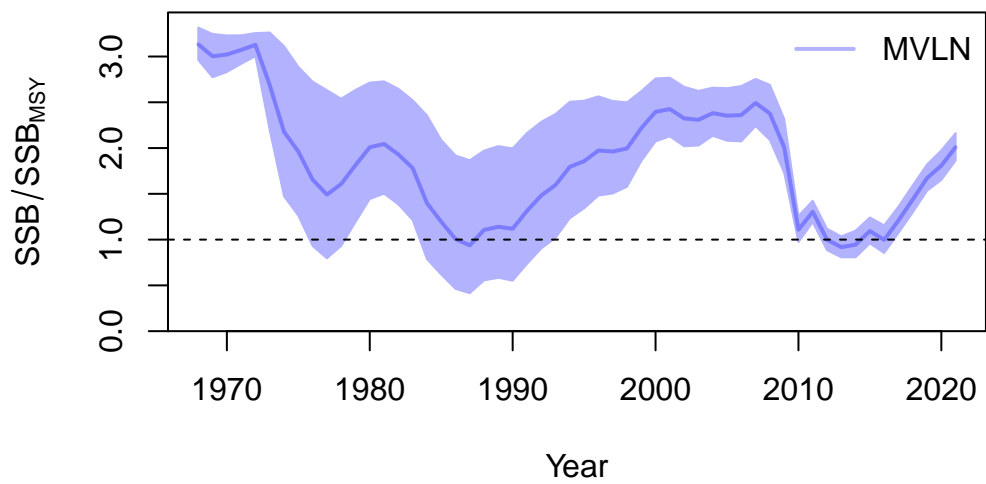
Changes in survey likelihood by fleet

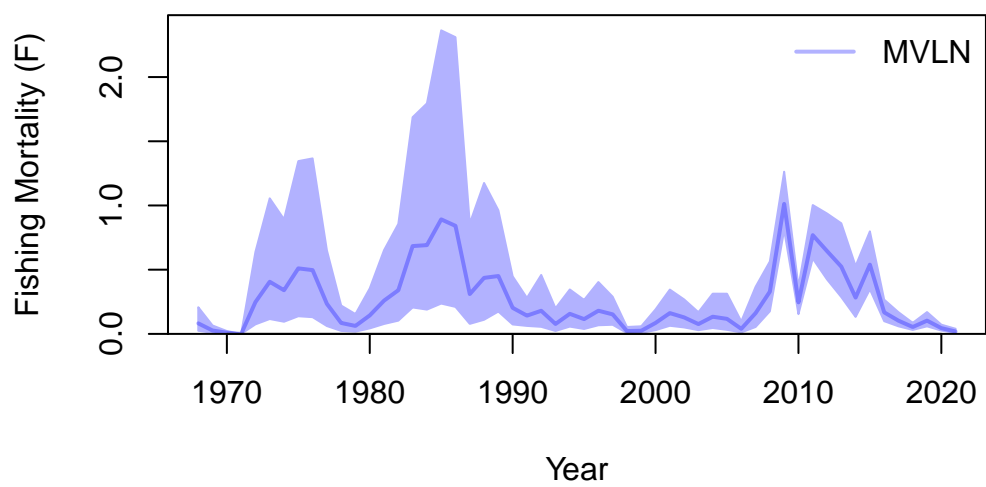
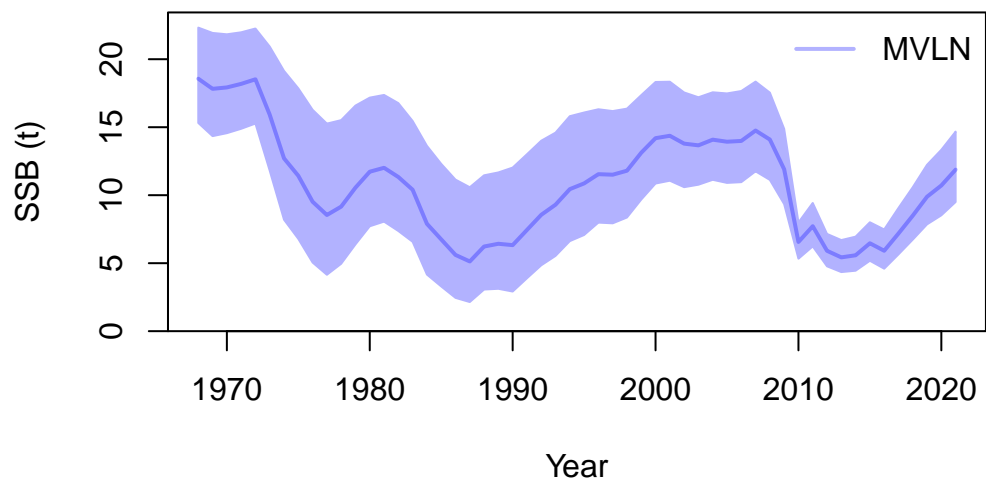


Management Quantities

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







null device
1

Jitter

