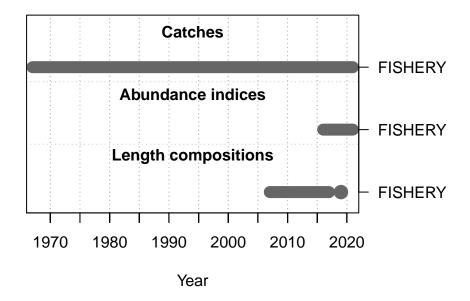
American Samoa Model Checks

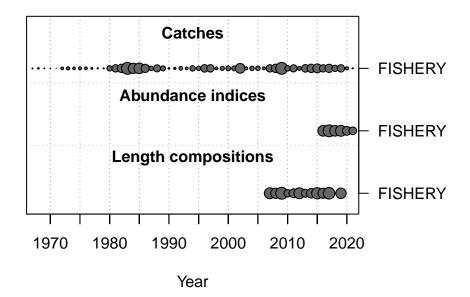
2022-08-30

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

Model Output

Input Data





Convergence Check

Converged MaxGrad 1 TRUE 2.52549e-05

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

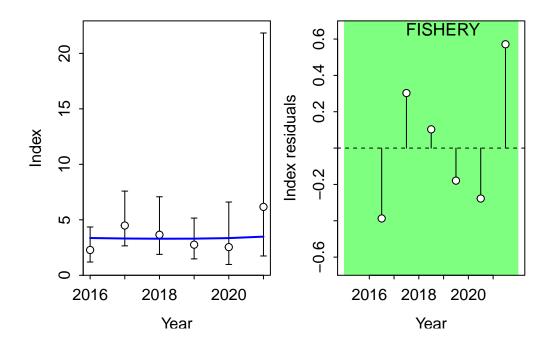
Fit to Model

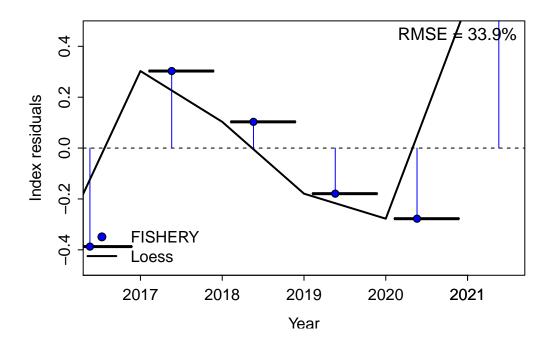
CPUE

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

RMSE stats by Index:

Length Comp





#Factor	Fleet	New_Var_adj	Type	Name
4	1	0.337319	len	FISHERY

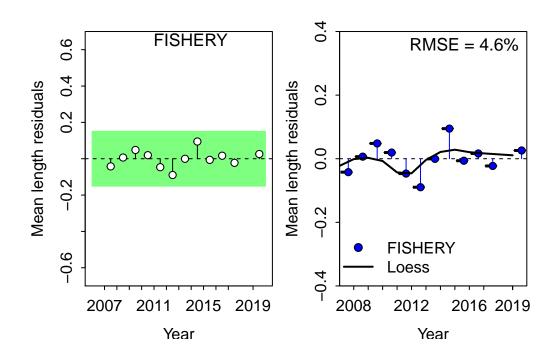
Residual Runs Test (/w plot) stats by Mean length:

Index runs.p test sigma3.lo sigma3.hi type 1 FISHERY 0.728 Passed -0.150908 0.150908 len

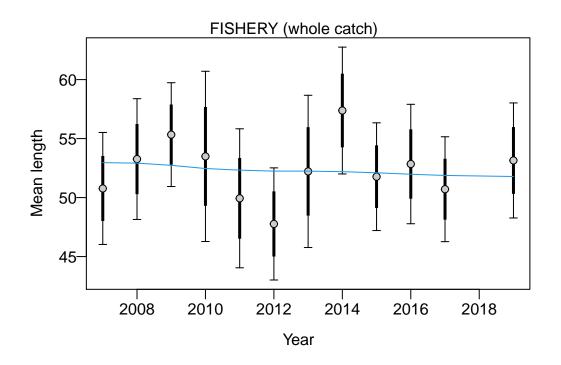
RMSE stats by Index:

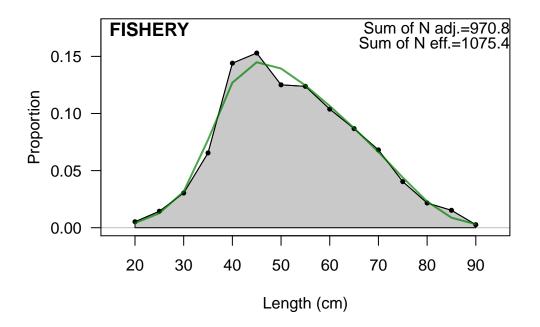
A tibble: 2 x 3

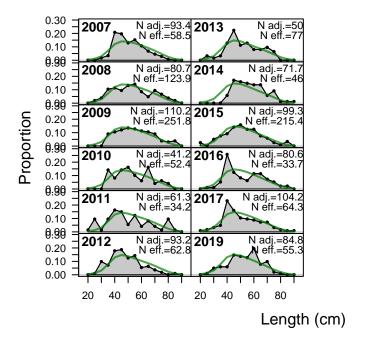
Fleet RMSE.perc Nobs <chr> <chr> 1 FISHERY 4.6 12
2 Combined 4.6 12



Retrospective and Hindcasting

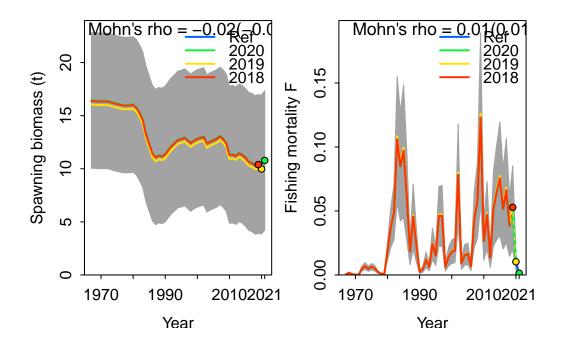






Retrospective

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



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

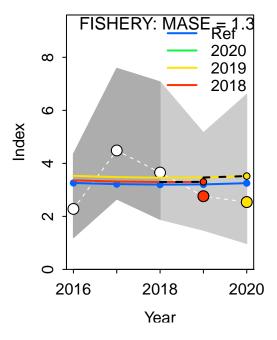
	type	peel	Rho	ForecastRho
1	F	2020	0.0005335874	0.0005127252
2	F	2019	0.0355054692	0.0350389036
3	F	2018	0.0053795248	0.0053807120
4	F	Combined	0.0138061938	0.0136441136

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)

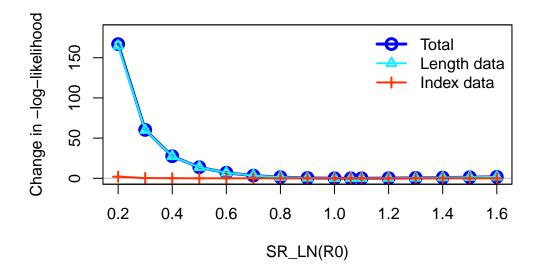
No observations in evaluation years to compute prediction residuals for Index FISHERY

MASE stats by Index:

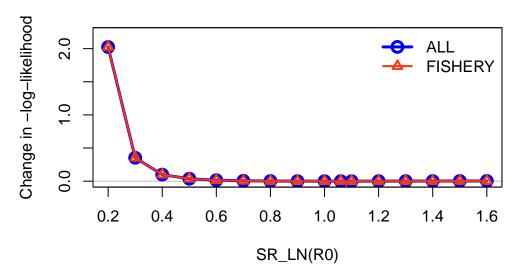
Recruitment Deviations

Likelihood Profile

[1] "SR_LN"				
	<pre>frac_change</pre>	${\tt include}$		label
TOTAL	1.0000	TRUE		Total
Catch	0.0000	FALSE		Catch
Equil_catch	0.0000	FALSE		Equilibrium catch
Survey	0.0121	TRUE		Index data
Length_comp	0.9878	TRUE		Length data
Recruitment	0.0000	FALSE		Recruitment
InitEQ_Regime	0.0000	FALSE	${\tt Initital}$	equilibrium recruitment
${\tt Forecast_Recruitment}$	0.0000	FALSE		Forecast recruitment
Parm_priors	0.0000	FALSE		Priors
Parm_softbounds	0.0001	FALSE		Soft bounds
Parm_devs	0.0000	FALSE		Parameter deviations
Crash_Pen	0.0000	FALSE		Crash penalty

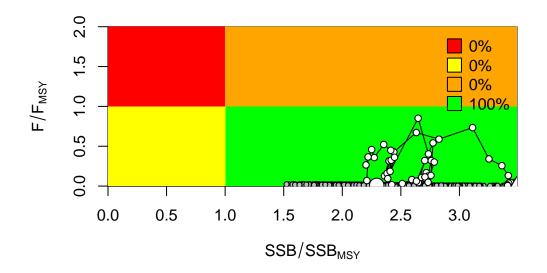


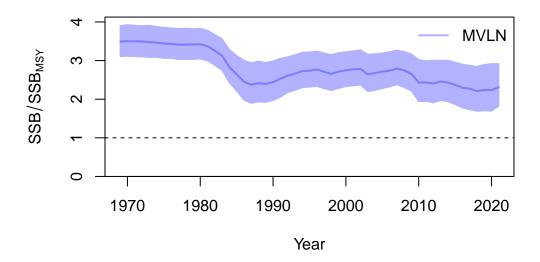
Changes in survey likelihood by fleet

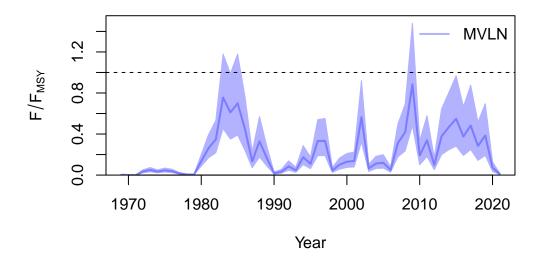


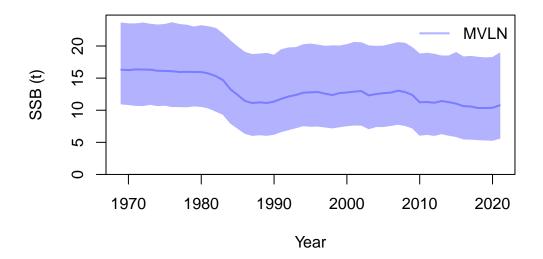
Management Quantities

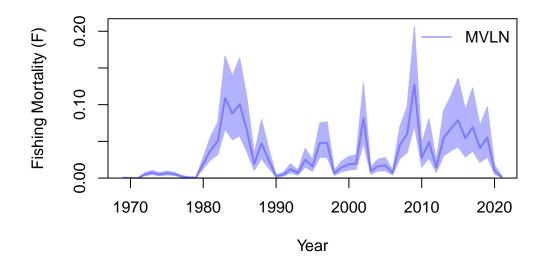
starter.sso with Bratio: SSB/SSBMSY and F: $_abs_F$











null device

Jitter

