

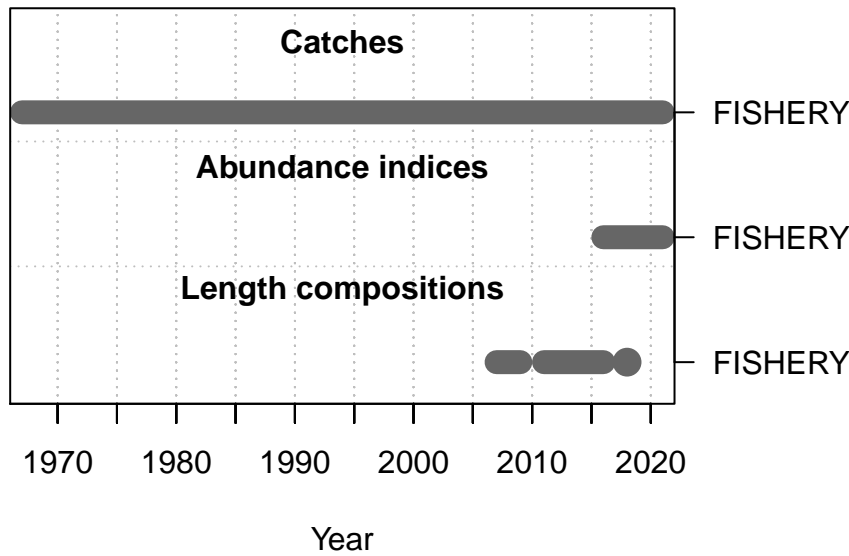
# American Samoa Model Checks

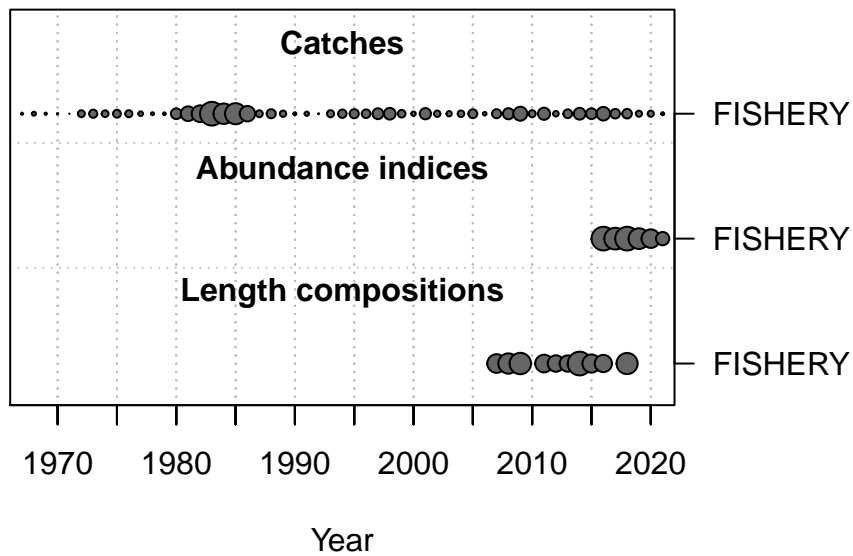
2022-10-17

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

## Model Output

### Input Data





### Convergence Check

```

Converged      MaxGrad
1      TRUE 3.56781e-05

```

```

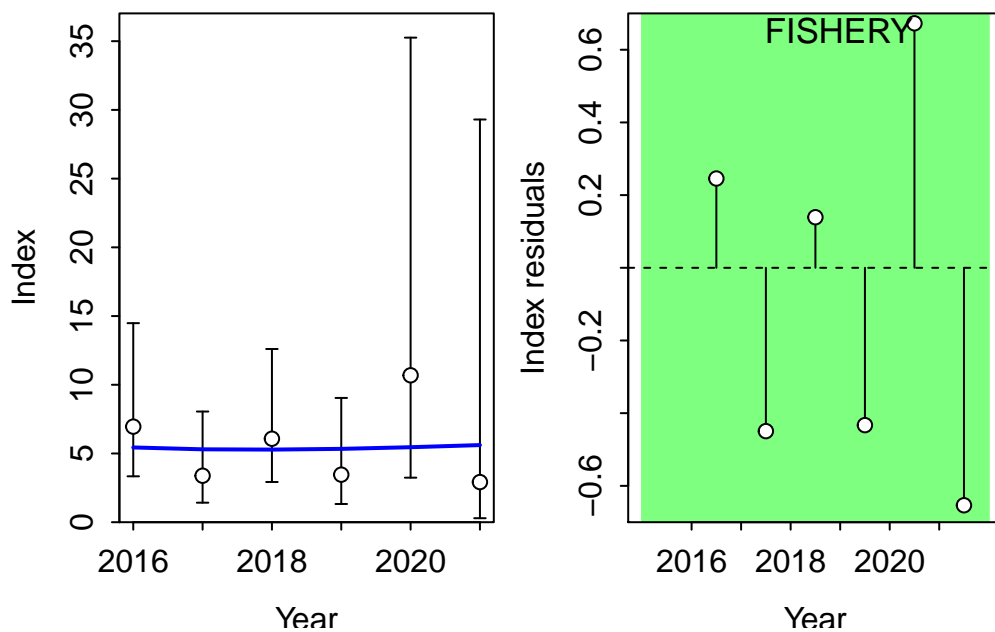
[1] "1 NOTE: Max data length bin: 90 < max pop len bins: 100; so will accumulate larger pop
[2] "N warnings: 1"

```

### Fit to Model

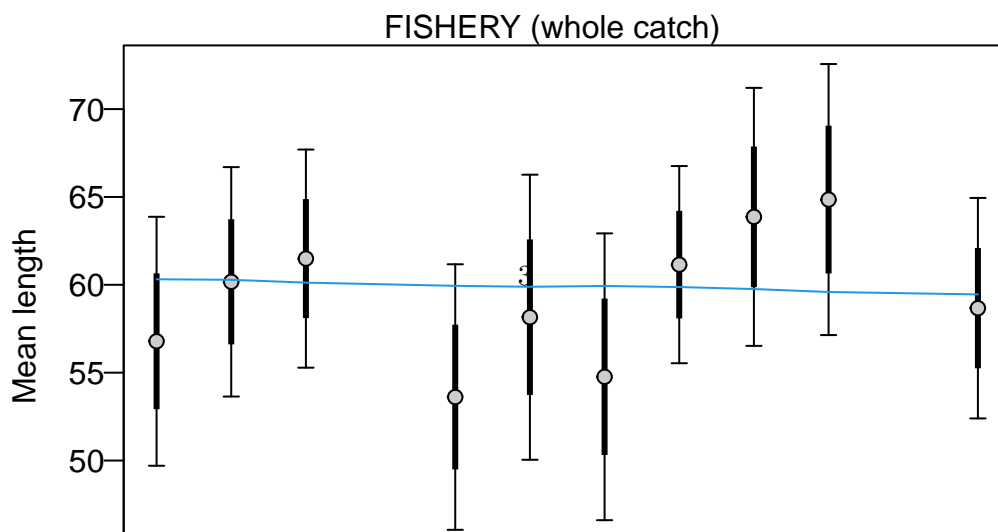
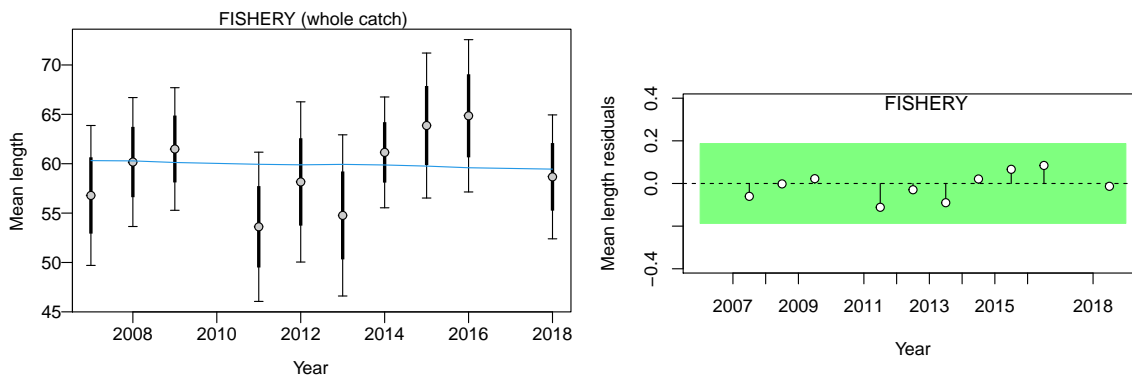
#### CPUE

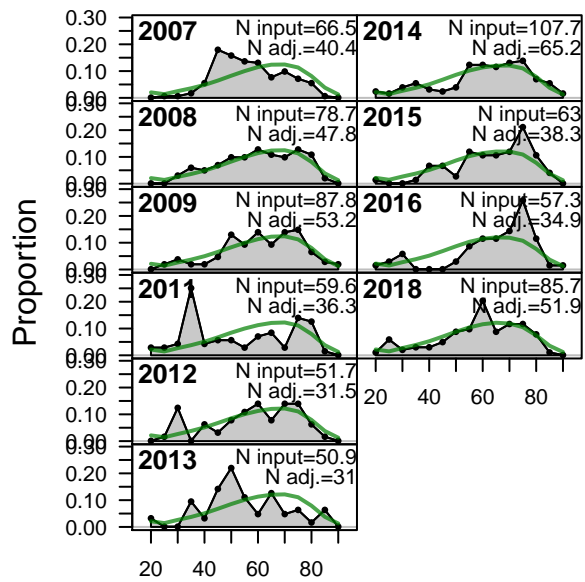
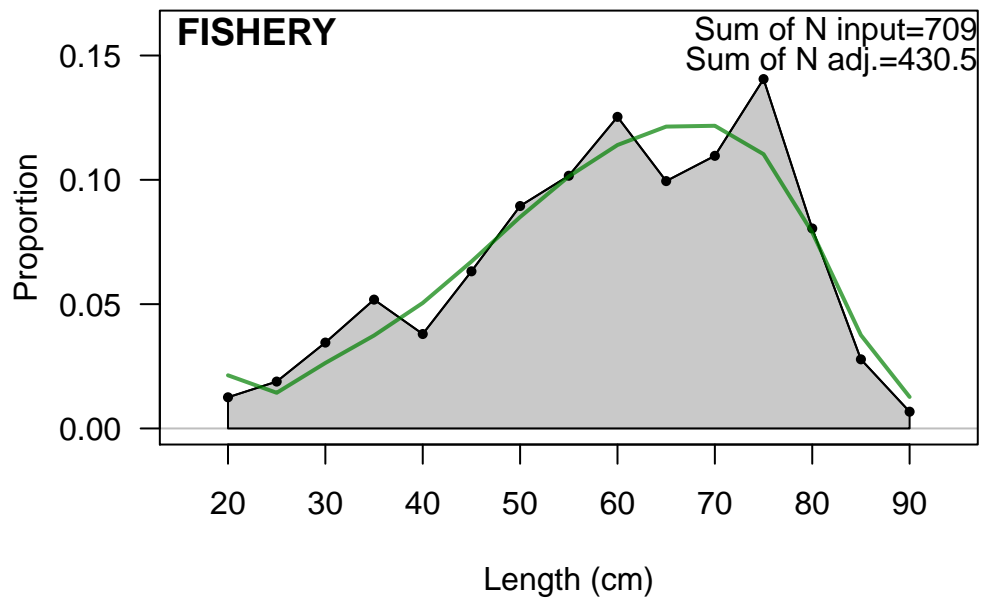
Fleet	RMSE.perc	Nobs
FISHERY	47.4	6
Combined	47.4	6



### Length Comp

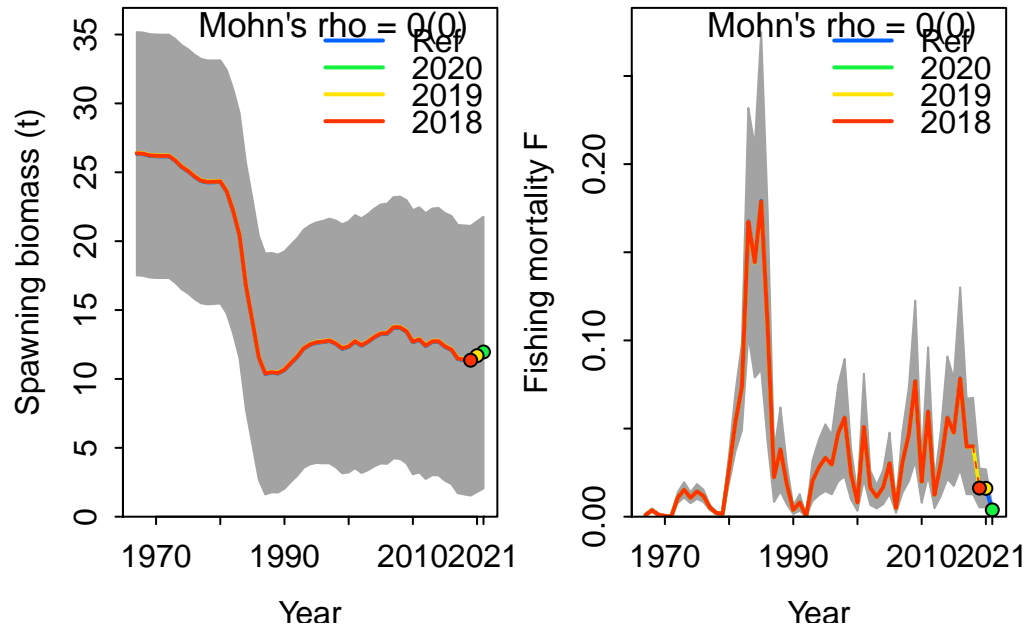
Fleet	RMSE.perc	Nobs
FISHERY	6.1	10
Combined	6.1	10





## Retrospective

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



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

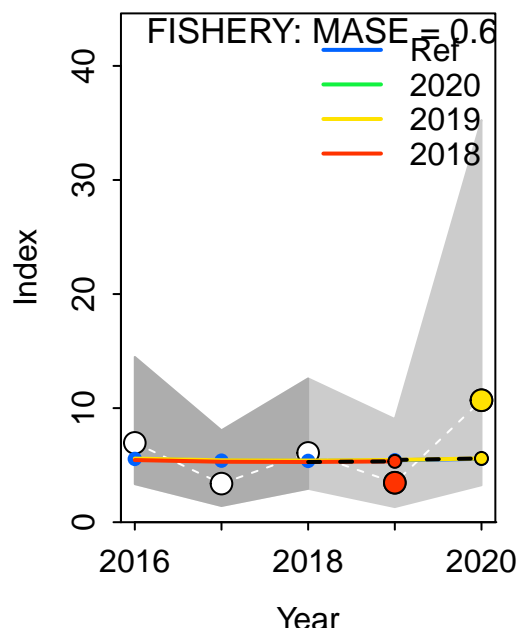
	type	peel	Rho	ForecastRho
1	F	2020	-0.002835211	-0.002763132
2	F	2019	-0.005095518	-0.004995667
3	F	2018	-0.002448546	-0.002434047
4	F Combined		-0.003459758	-0.003397615

## 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

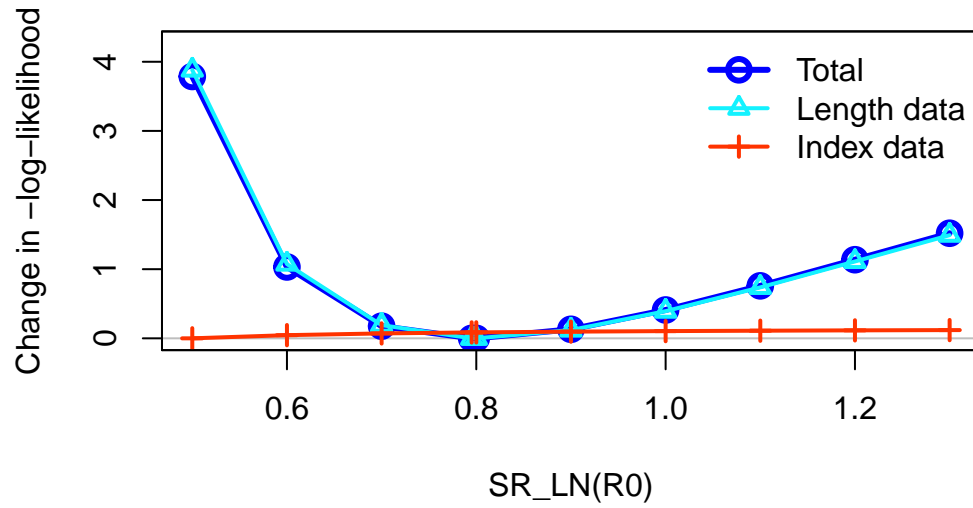
MASE stats by Index:

## Recruitment Deviations

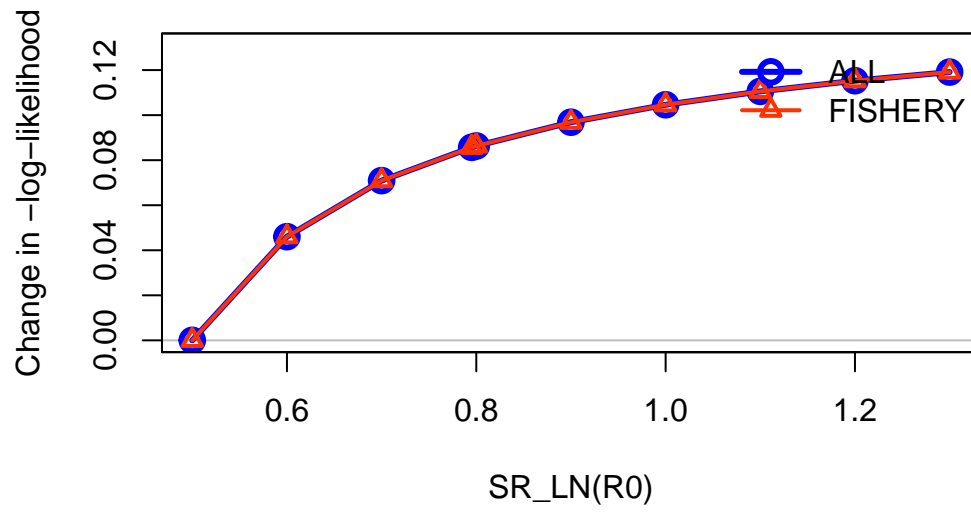
## Likelihood Profile

[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	0.0315	TRUE	Index data
Length_comp	1.0246	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	0.0021	FALSE	Priors
Parm_softbounds	0.0001	FALSE	Soft bounds
Parm_devs	0.0000	FALSE	Parameter deviations
Crash_Pen	0.0000	FALSE	Crash penalty



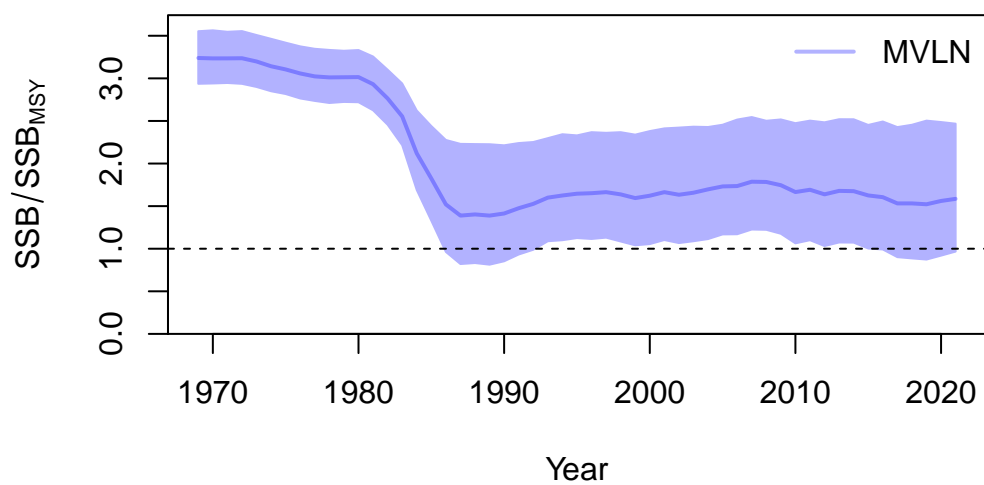
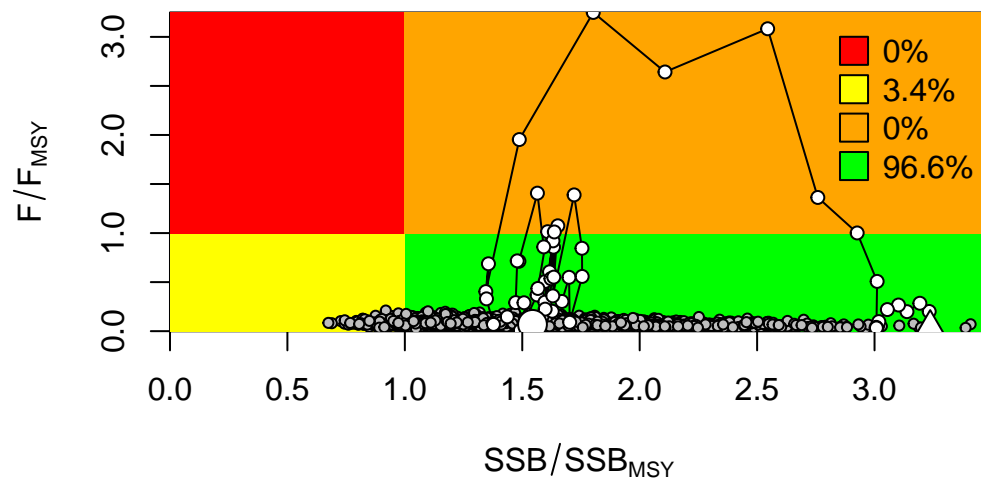
## Changes in survey likelihood by fleet

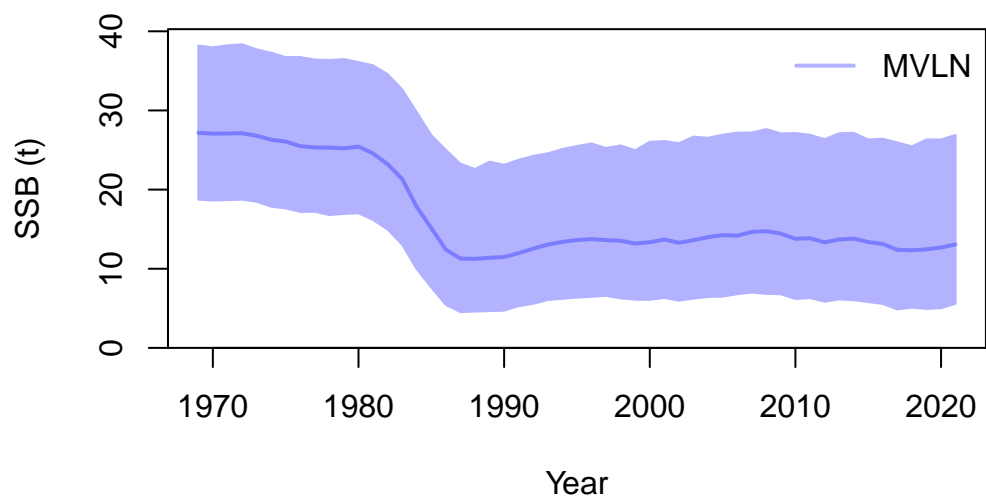
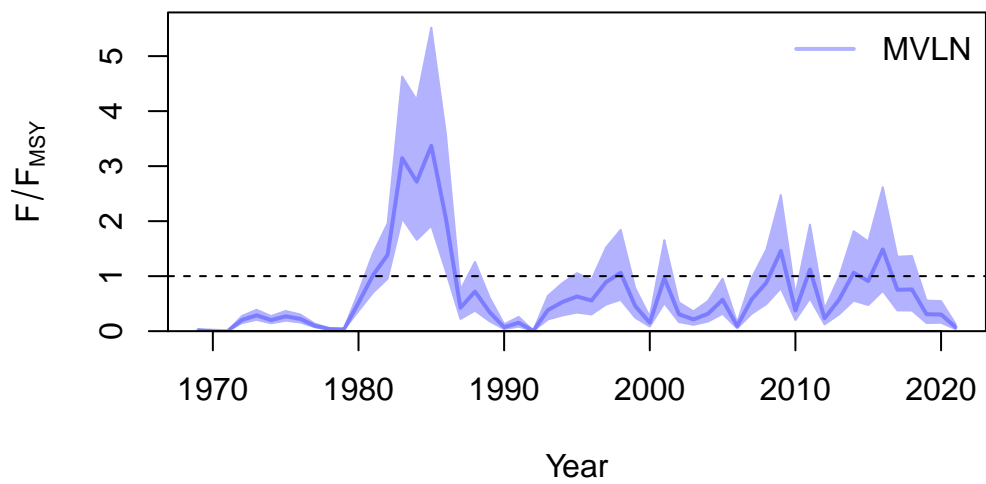


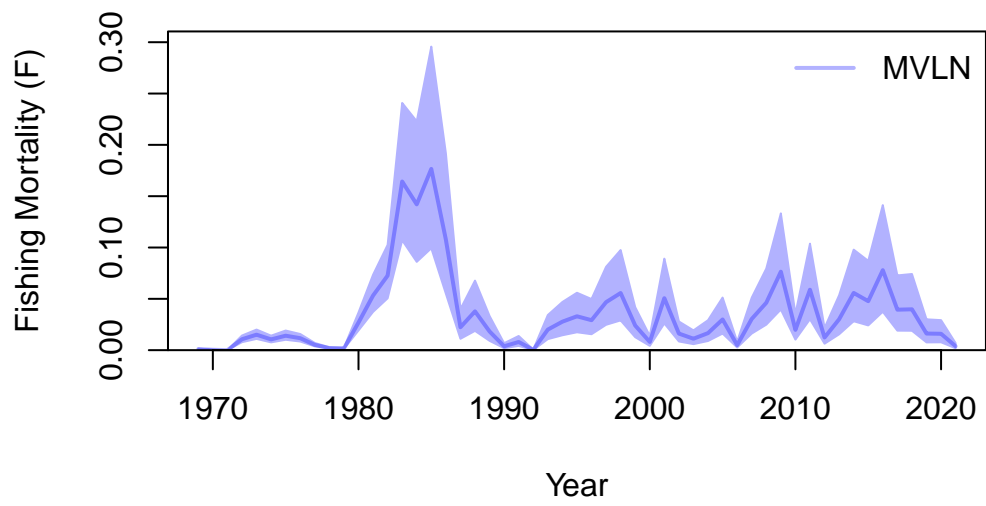
## Management Quantities

starter.sso with Bratio: SSB/SSBMSY and F: \_abs\_F









null device  
1

**Jitter**

