

American Samoa Model Checks

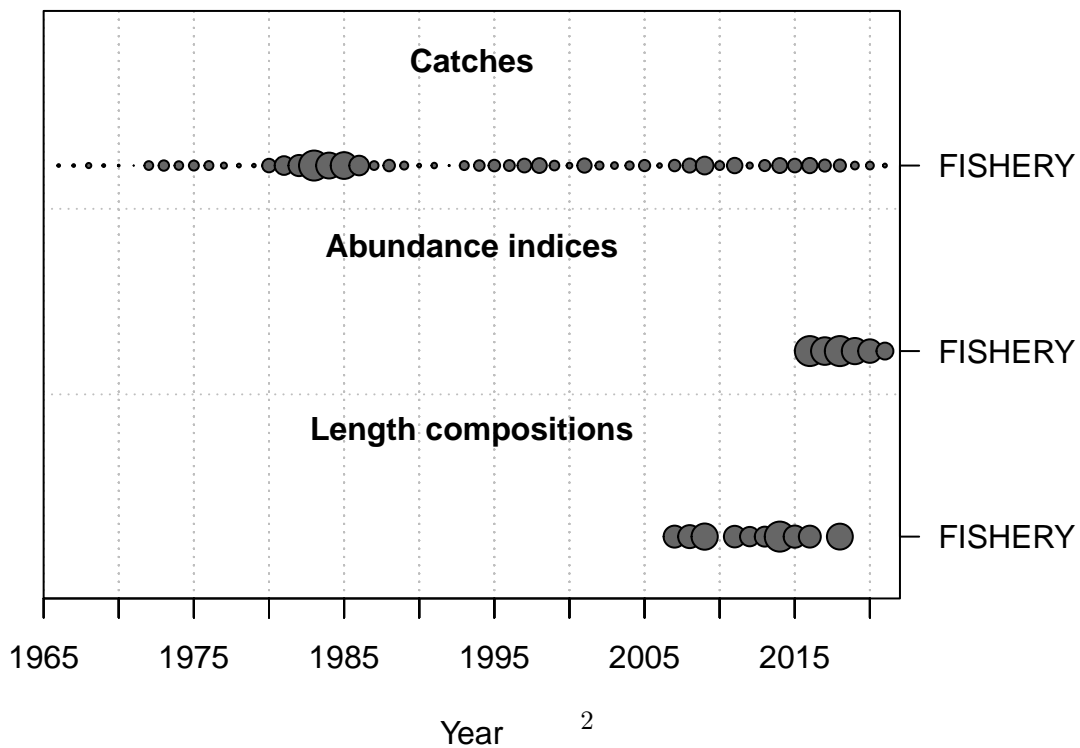
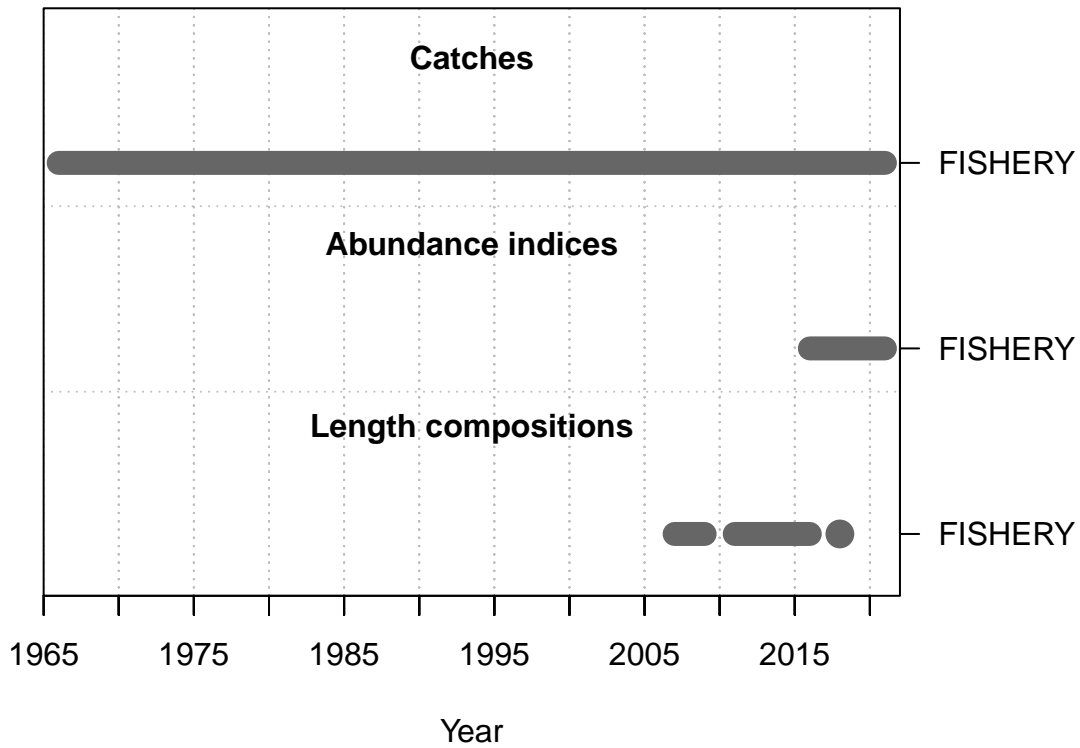
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This is a summary report for the ETCO base model run.

Model Output

Input Data



Convergence Check

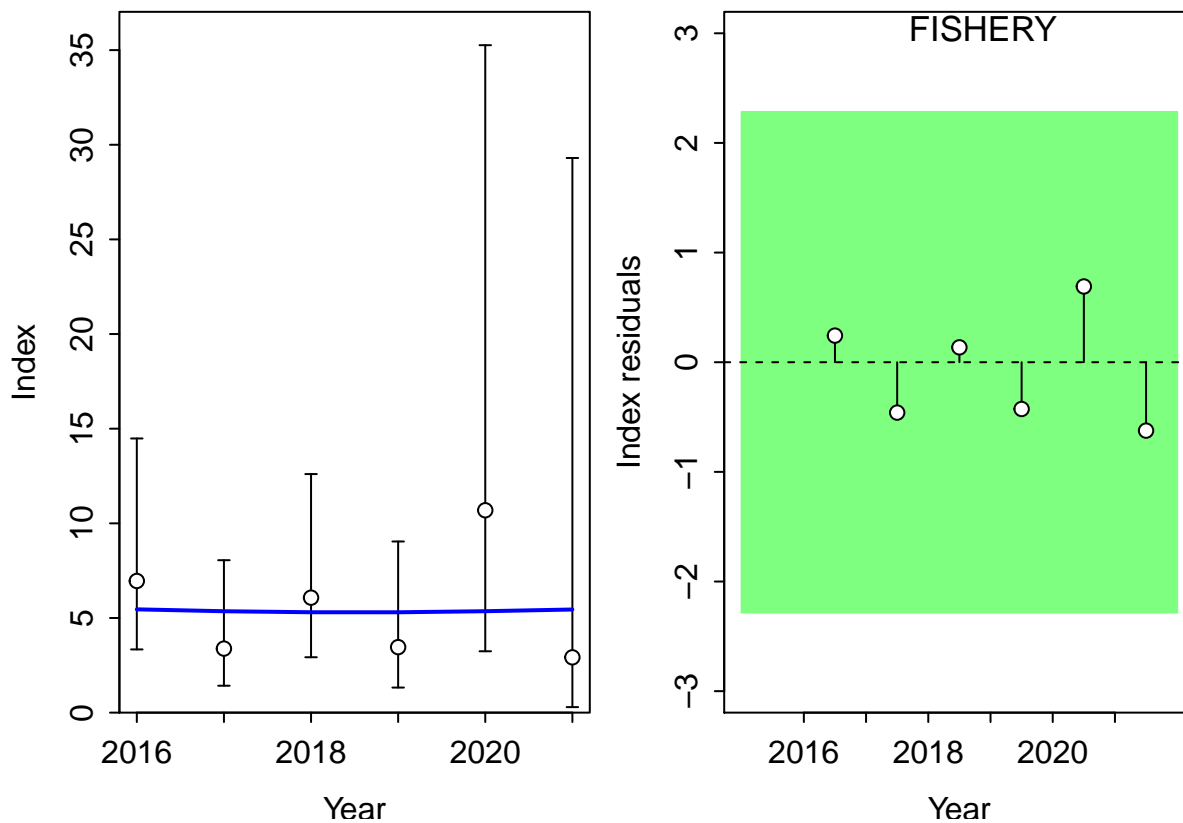
```
## Converged      MaxGrad
## 1      TRUE 9.55821e-05
```

```
## [1] "1 NOTE: Max data length bin: 90 < max pop len bins: 100; so will accumulate larger pop len bin"
## [2] " N parameters are on or within 1% of min-max bound: 2; check results, variance may be suspect"
## [3] "N warnings: 1"
```

Fit to Model

CPUE

```
##
## Running Runs Test Diagnostics for Index
## Plotting Residual Runs Tests
```

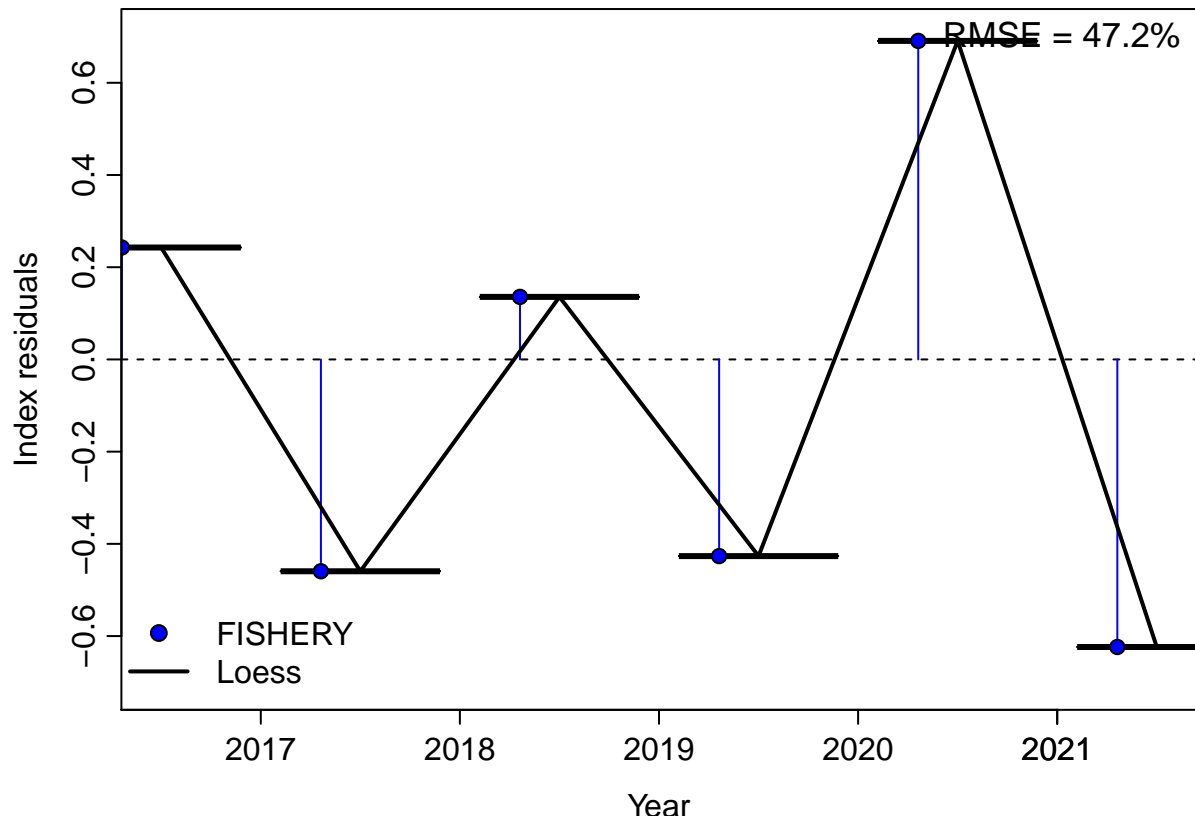


```
##
## Runs Test stats by Index:
## Plotting JABBA residual plot
```

```
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric = parametric, : Chernobyl! trL>n 6
```

```
## Warning in simpleLoess(y, x, w, span, degree = degree, parametric = parametric, : Chernobyl! trL>n 6
```

```
## Warning in sqrt(sum.squares/one.delta): NaNs produced
```



```
##
## RMSE stats by Index:
```

Length Comp

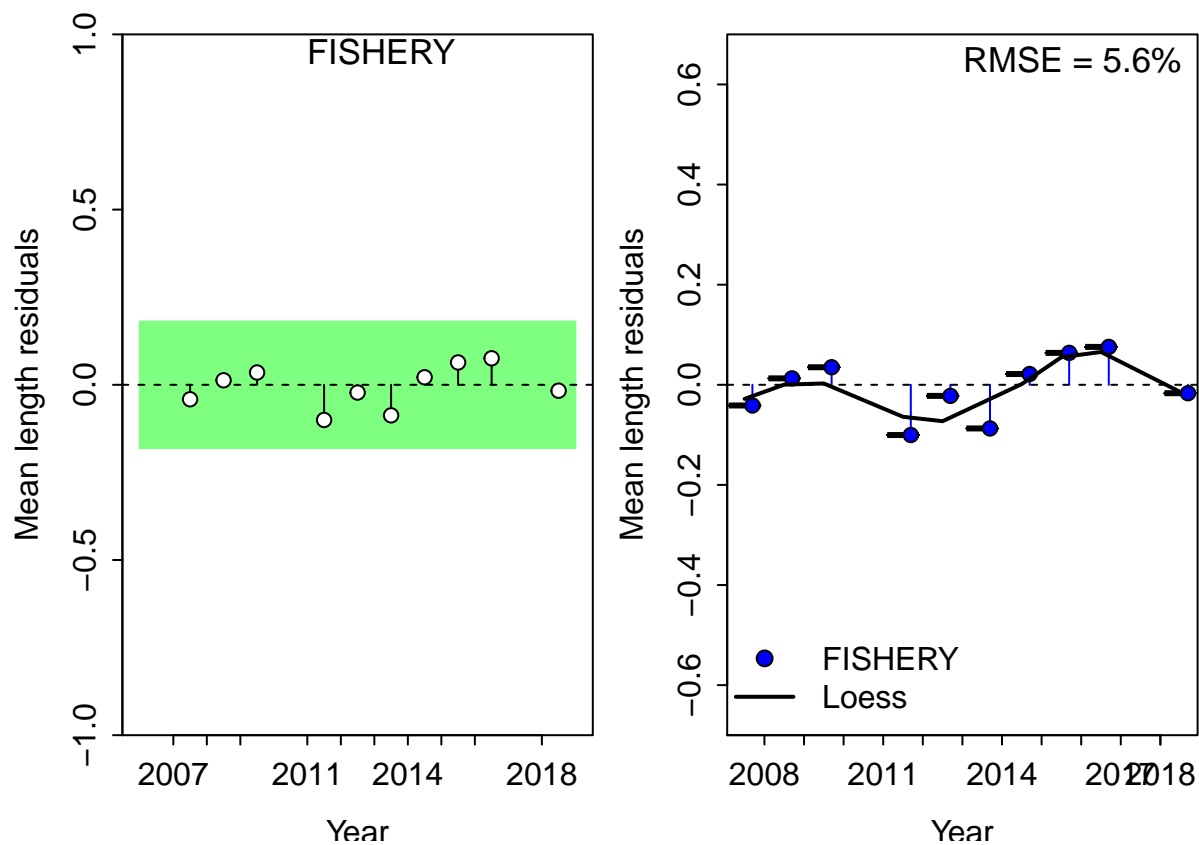
#Factor	Fleet	New_Var_adj	Type	Name
4	1	0.33241	len	FISHERY

```
##
## Running Runs Test Diagnostics for Mean length
## Plotting Residual Runs Tests
```

```
##
## Runs Test stats by Mean length:
```

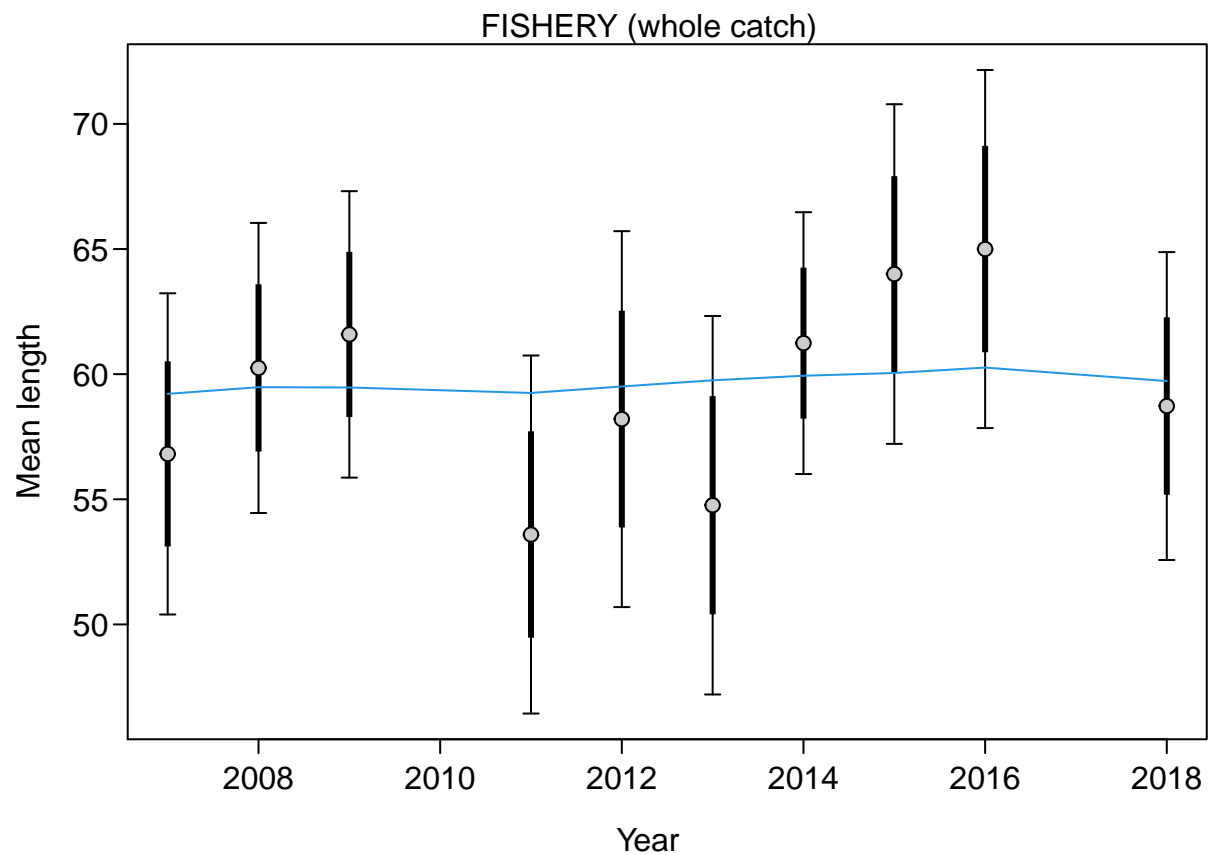
```
## Index runs.p test sigma3.lo sigma3.hi type
## 1 FISHERY 0.251 Passed -0.180399 0.180399 len
```

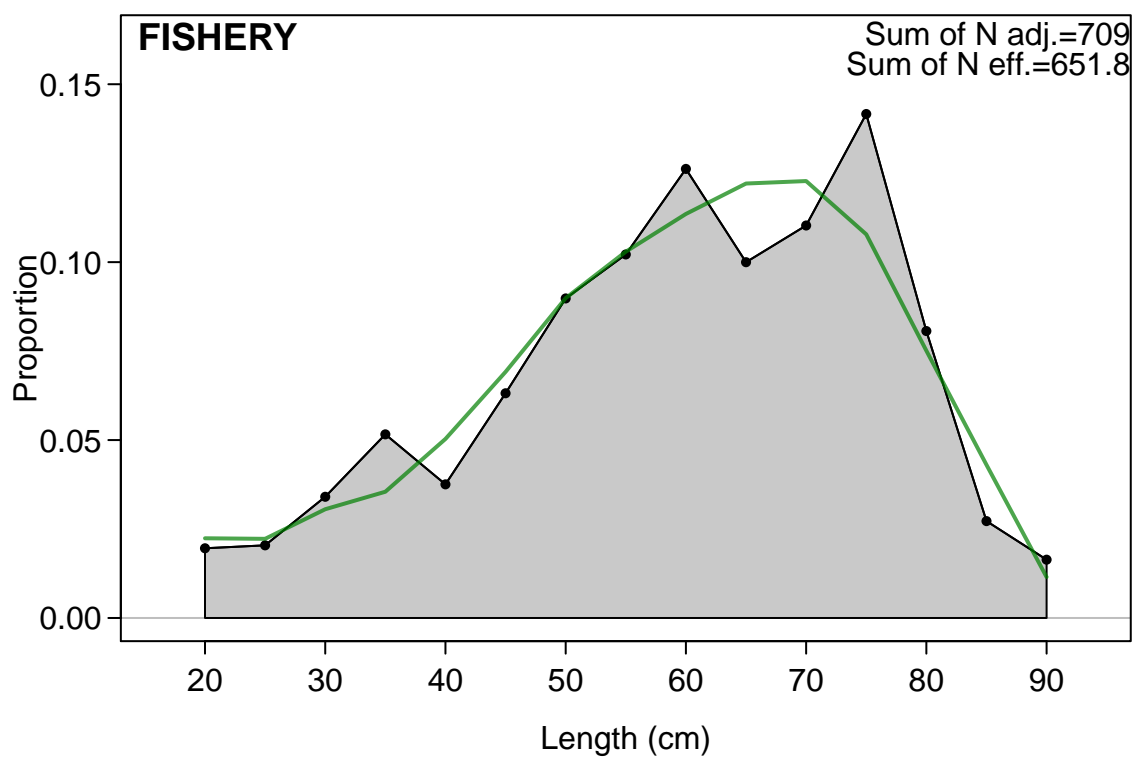
```
## Plotting JABBA residual plot
```

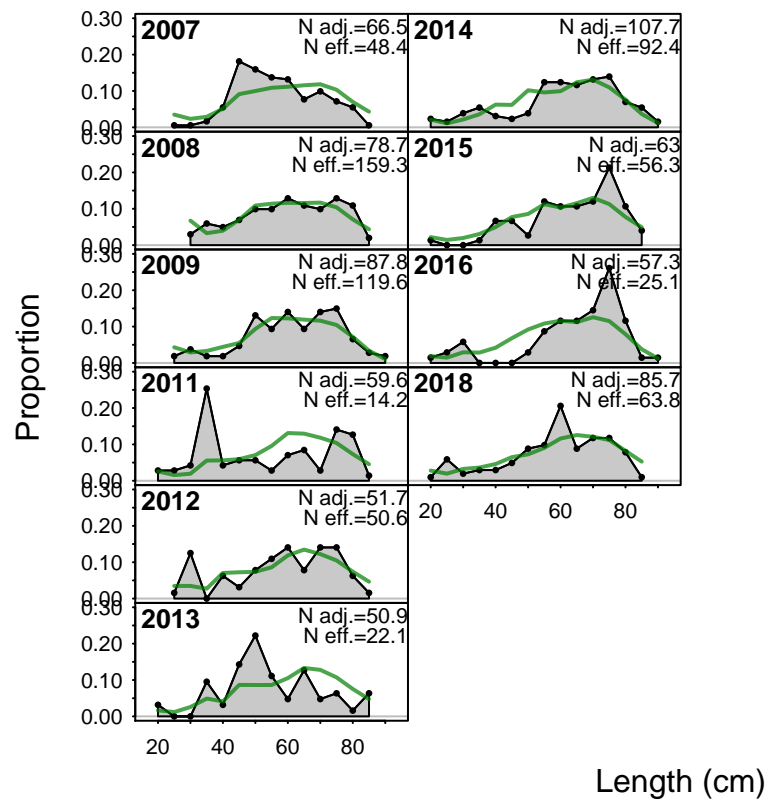


```
##
## RMSE stats by Index:

##   indices RMSE.perc nobs
## 1  FISHERY      5.6    10
## 2 Combined      5.6    10
```







Retrospective and Hindcasting

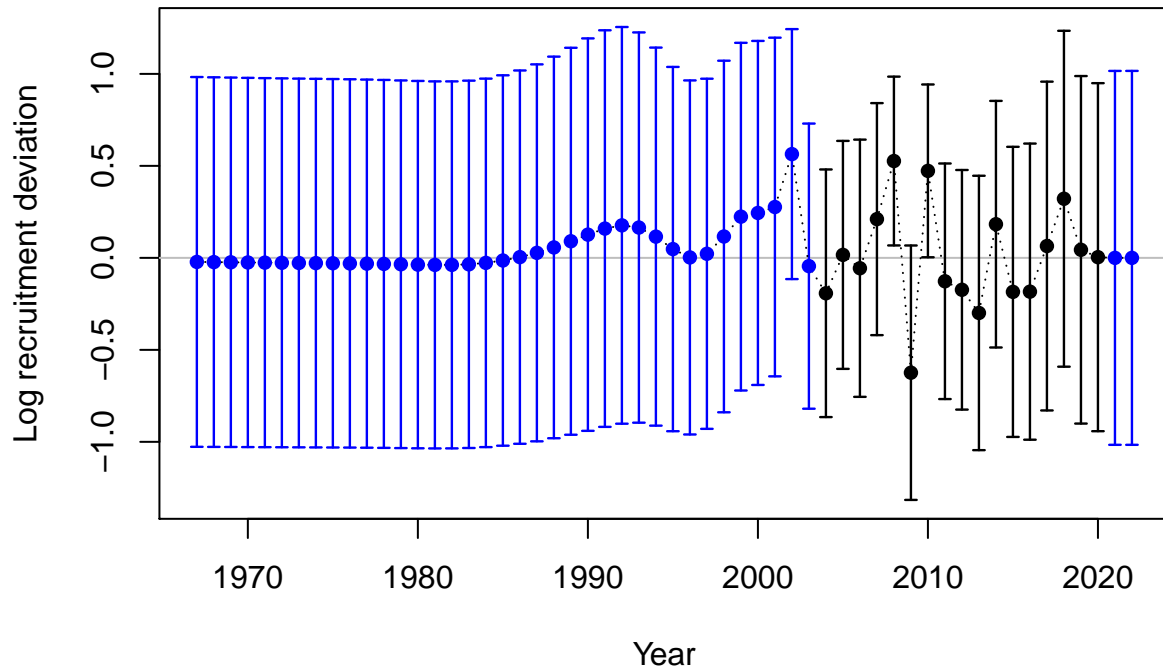
Retrospective

```
## [1] "No retrospective runs were found"
```

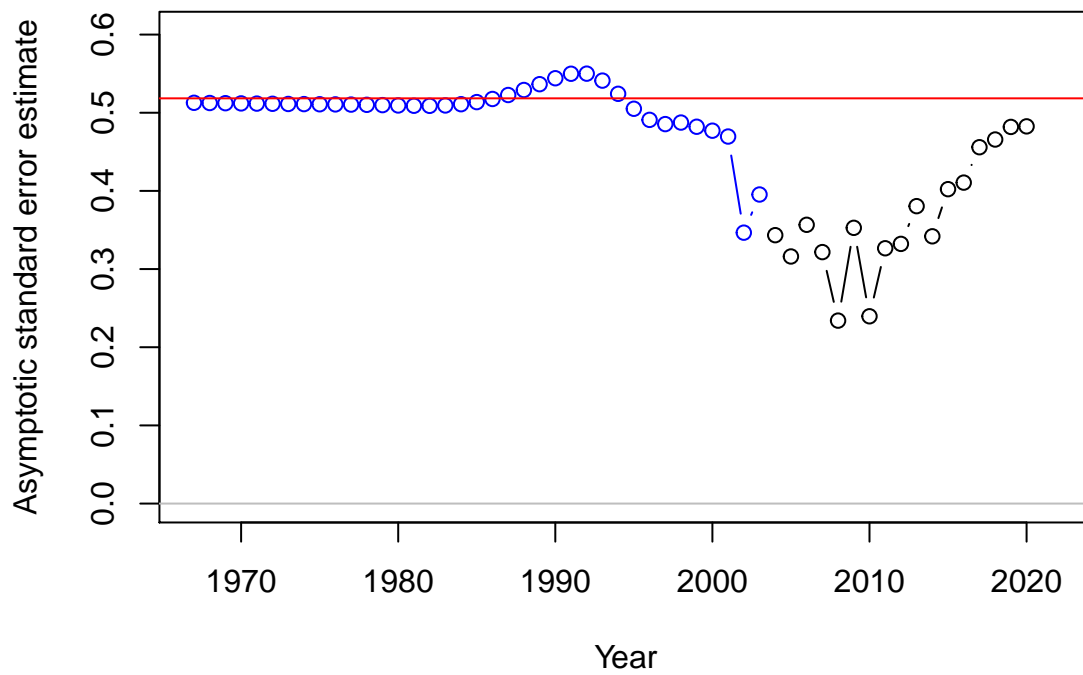
Hindcasting

```
## [1] "No information for hindcast was found"
```


Recruitment Deviations



Recruitment deviation variance



Likelihood Profile

```
## [1] "SR_LN"

## Parameter matching profile.string=SR_LN: SR_LN(R0)

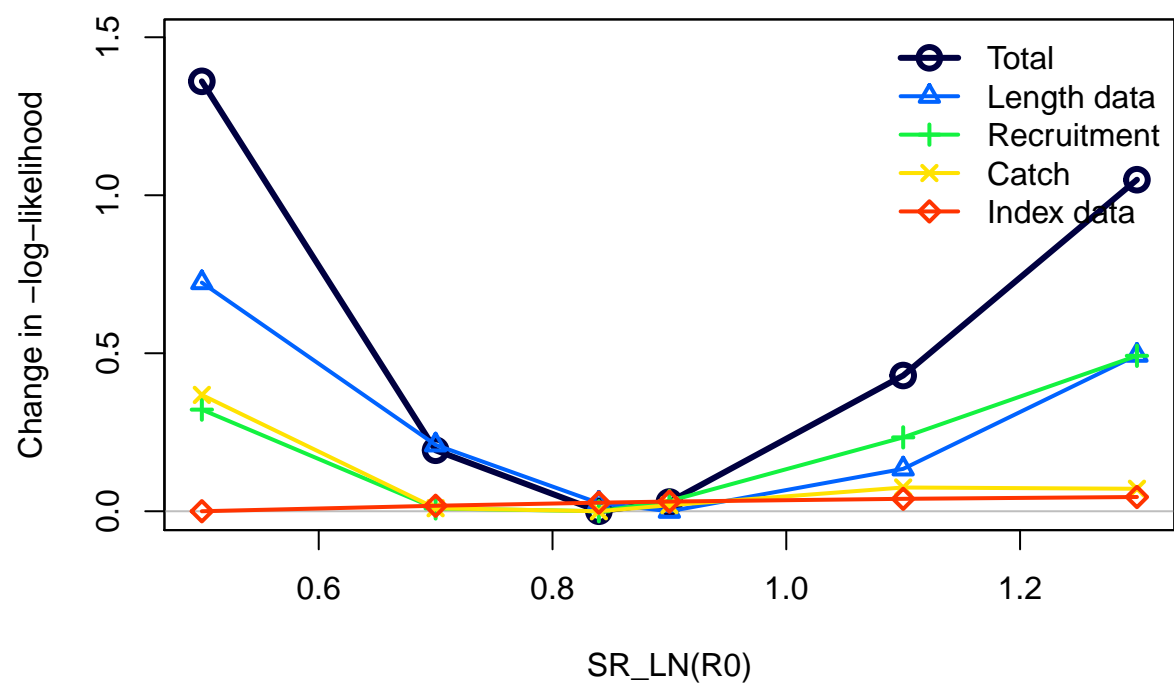
## Parameter values (after subsetting based on input 'models'): 0.5, 0.7, 0.9, 1.1, 1.3, 0.839649

##
## Likelihood components showing max change as fraction of total change.
## To change which components are included, change input 'minfraction'.

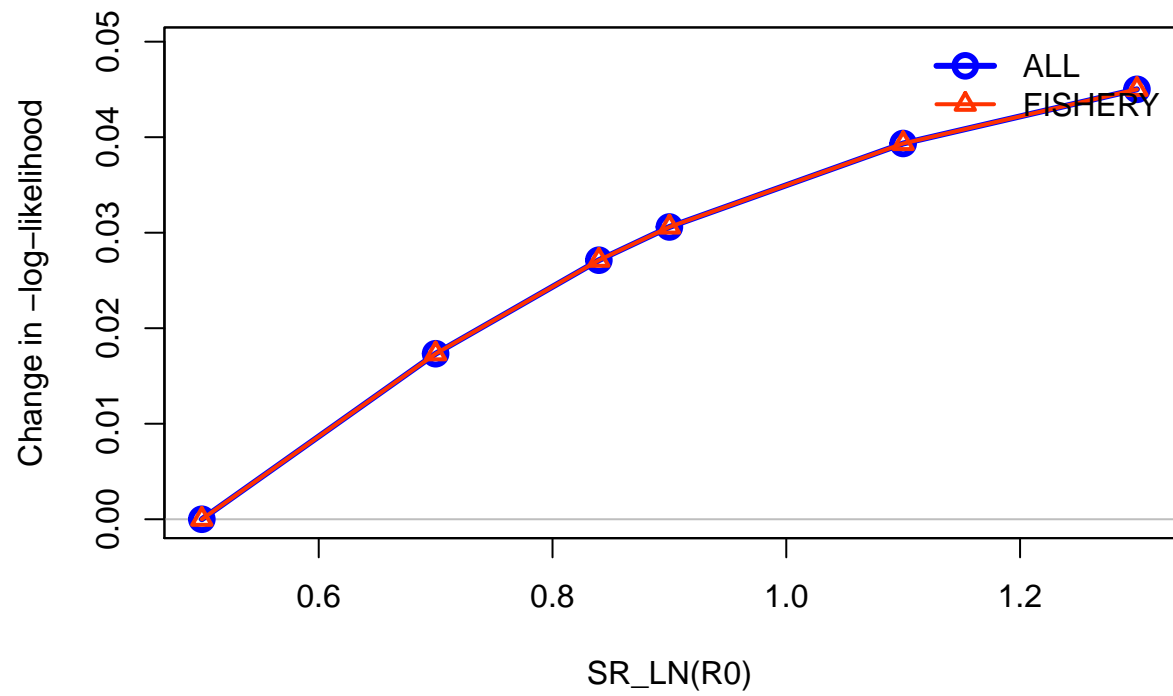
##
##          frac_change include          label
## TOTAL          1.0000   TRUE          Total
## Catch          0.2706   TRUE          Catch
## Equil_catch    0.0001  FALSE      Equilibrium catch
## Survey        0.0331   TRUE          Index data
## Length_comp   0.5319   TRUE          Length data
## Recruitment    0.3616   TRUE          Recruitment
## InitEQ_Regime  0.0000  FALSE Initital equilibrium recruitment
## Forecast_Recruitment 0.0000  FALSE      Forecast recruitment
## Parm_priors    0.0000  FALSE          Priors
## Parm_softbounds 0.0001  FALSE          Soft bounds
## Parm_devs      0.0000  FALSE      Parameter deviations
## Crash_Pen      0.0000  FALSE          Crash penalty

## Parameter matching profile.string = 'SR_LN': 'SR_LN(R0)
## Parameter values (after subsetting based on input 'models'): 0.5, 0.7, 0.9, 1.1, 1.3, 0.839649,

## Fleet-specific likelihoods showing max change as fraction of total change.
## To change which components are included, change input 'minfraction'.
##          frac_change include
## prof.table....c.1.3..      1   TRUE
```

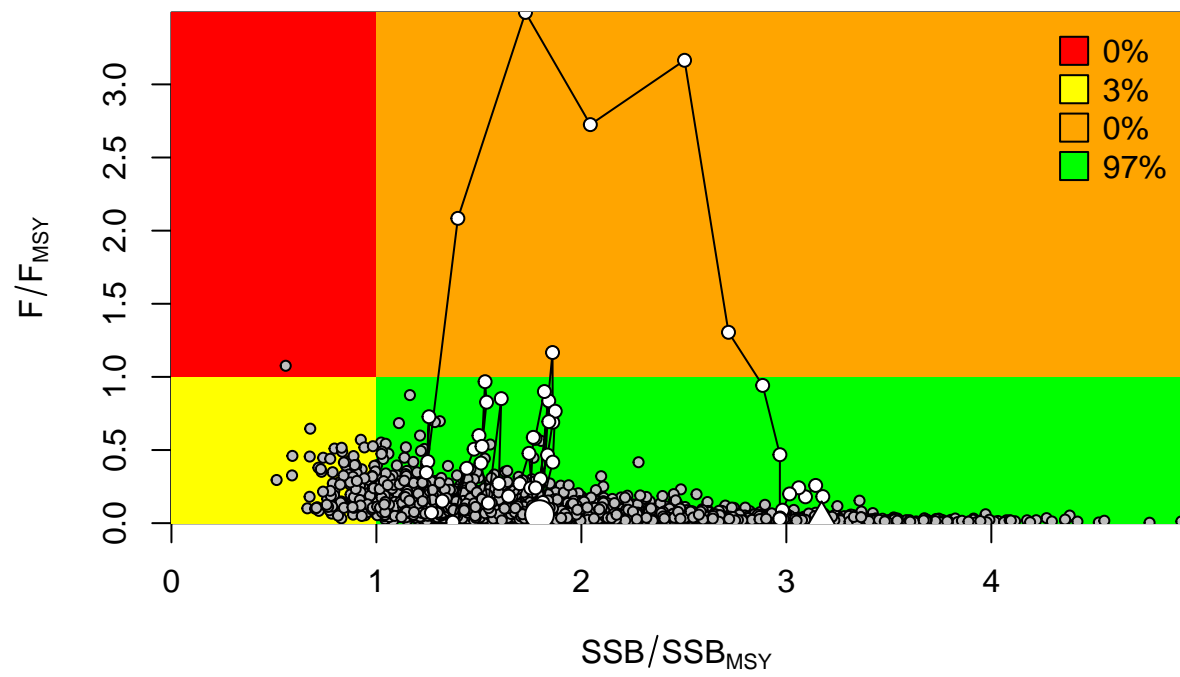


Changes in survey likelihood by fleet

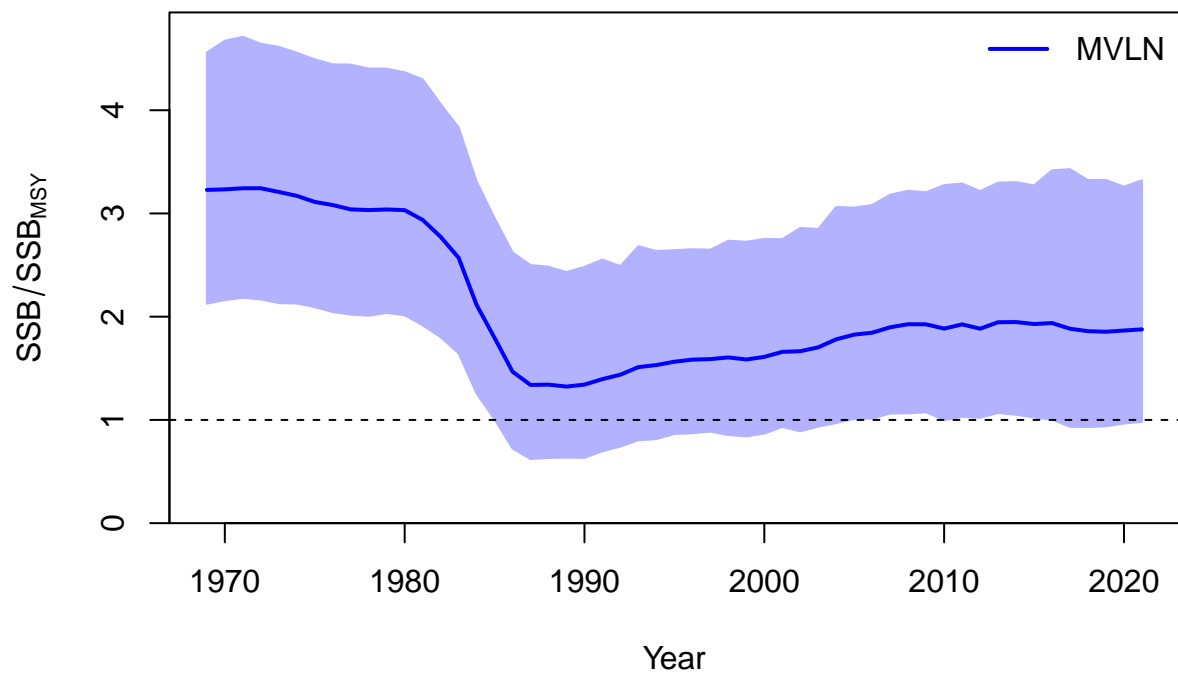


Management Quantities

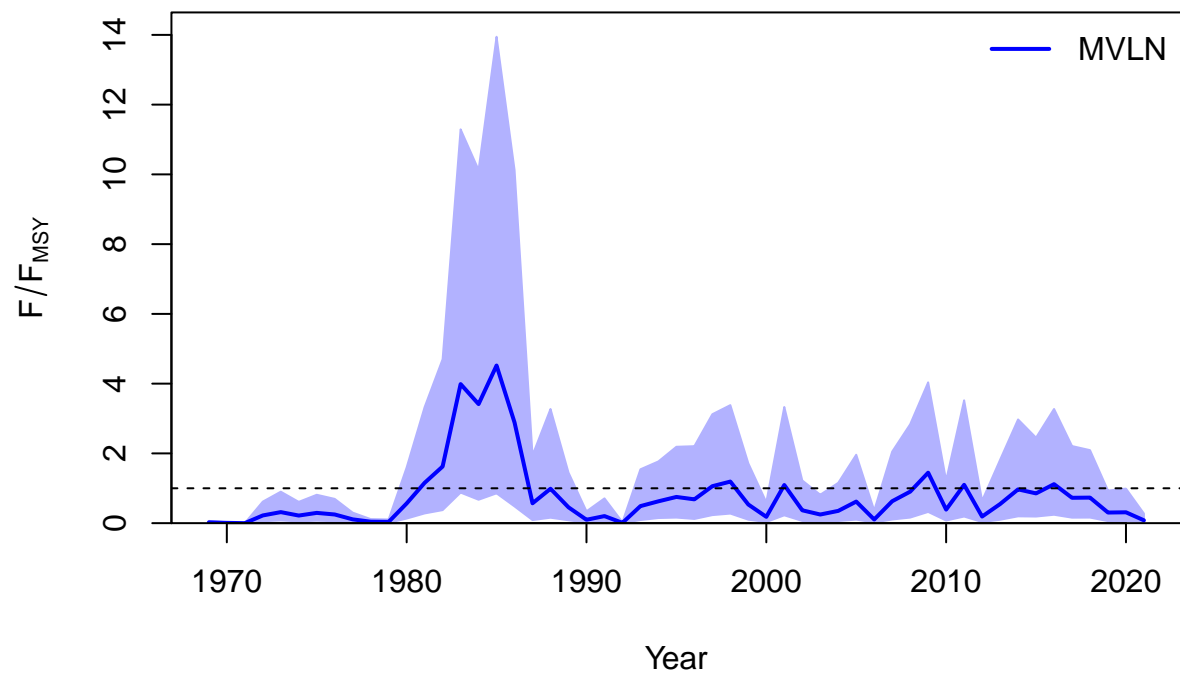
```
##  
## starter.sso with Bratio: SSB/SSBMSY and F: _abs_F  
##
```



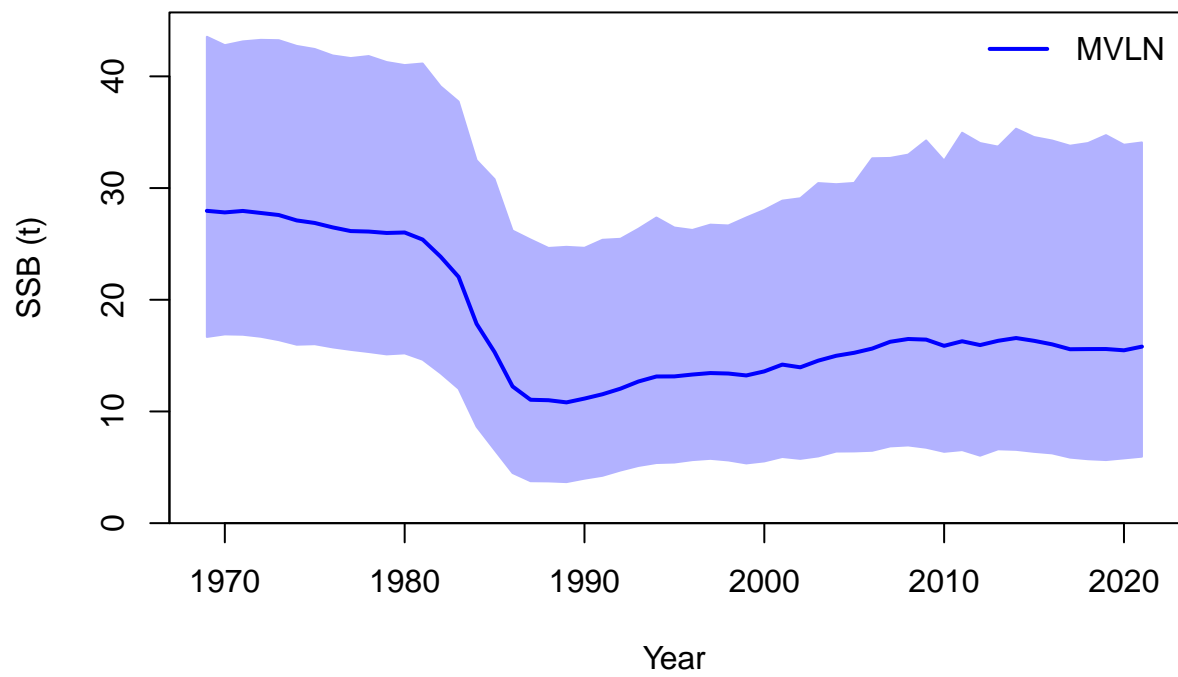
Plot Comparison of stock



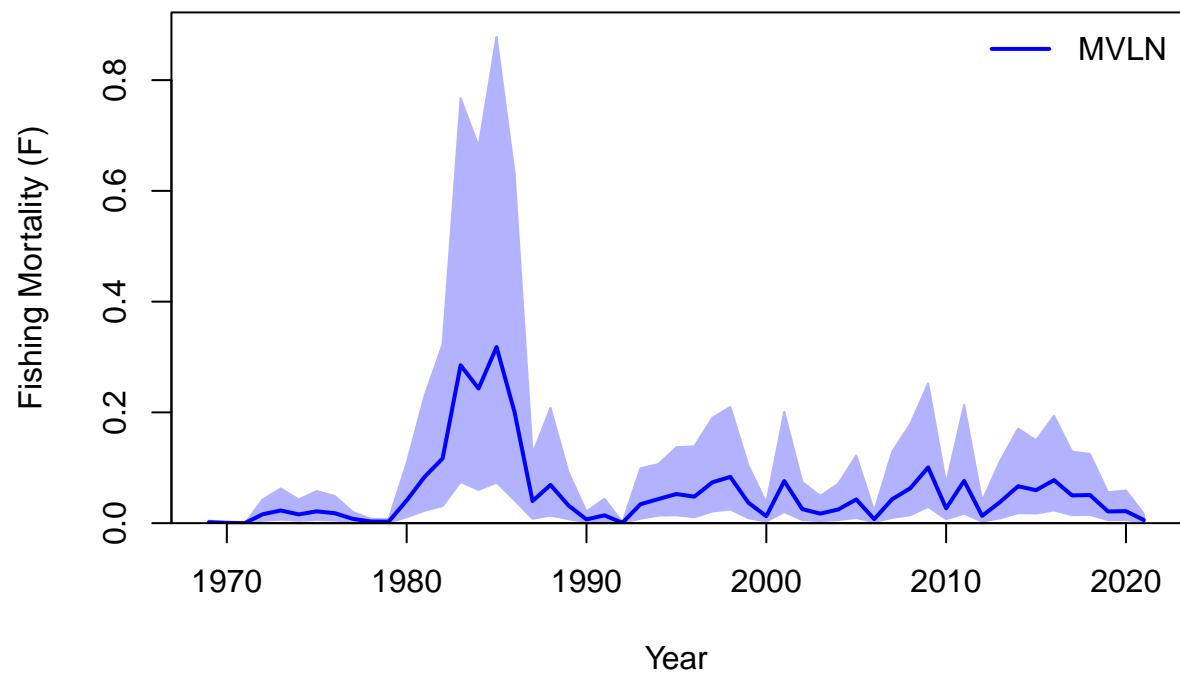
```
##  
## Plot Comparison of harvest
```



Plot Comparison of SSB



Plot Comparison of F



```
## RStudioGD  
## 2
```

Jitter

```
## [1] "No jitter runs were found."
```