Class 'Obs'

An operating model component that controls the observation model

Slots

Name
The name of the observation model object

Cobs
Log-normal catch observation error expressed as a coefficient of variation (uniform distribution)

Cbiascv
A coefficient of variation controlling the sampling of bias in catch observations for each simulation (uniform distribution)

CAA_nsamp
Number of catch-at-age observation per time step (uniform distribution)

CAA_ESS
Effective sample size (independent age draws) of the multinomial catch-at-age observation error model (uniform distribution)

CAL_nsamp
Number of catch-at-length observation per time step (uniform distribution)

CAL_ESS
Effective sample size (independent length draws) of the multinomial catch-at-length observation error model (uniform distribution)

CALcv
Lognormal, variability in the length at age (uniform distribution)

Iobs
Observation error in the relative abundance indices expressed as a coefficient of variation (uniform distribution)

Mcv
Persistent bias in the prescription of natural mortality rate sampled from a log-normal distribution with coefficient of variation (Mcv)(uniform distribution)

Kcv
Persistent bias in the prescription of growth parameter k sampled from a log-normal distribution with coefficient of variation (Kcv)(uniform distribution)

t0cv
Persistent bias in the prescription of t0 sampled from a log-normal distribution with coefficient of variation (t0cv)(uniform distribution)

Linfcv
Persistent bias in the prescription of maximum length sampled from a log-normal distribution with coefficient of variation (Linfcv)(uniform distribution)

LFCcv
Persistent bias in the prescription of lenght at first capture sampled from a log-normal distribution with coefficient of variation (LFCcv)(uniform distribution)

LFScv
Persistent bias in the prescription of length-at-fully selection sampled from a log-normal distribution with coefficient of variation (LFScv)(uniform distribution)

B0cv
Persistent bias in the prescription of maximum lengthunfished biomass sampled from a log-normal distribution with coefficient of variation (B0cv)(uniform distribution)

FMSYcv
Persistent bias in the prescription of FMSY sampled from a log-normal distribution with coefficient of variation (FMSYcv)(uniform distribution)

FMSY_Mcv
Persistent bias in the prescription of FMSY/M sampled from a log-normal distribution with coefficient of variation (FMSY_cv)(uniform distribution)

BMSY_B0cv
Persistent bias in the prescription of BMsY relative to unfished sampled from a log-normal distribution with coefficient of variation (BMSY_B0cv)(uniform distribution)

rcv
Persistent bias in the prescription of intrinsic rate of increase sampled from a log-normal distribution with coefficient of variation (rcv)(uniform distribution)

LenMcv
Persistent bias in the prescription of length at 50 percent maturity sampled from a log-normal distribution with coefficient of variation (A50cv)(uniform distribution)

Dbiascv
Persistent bias in the prescription of stock depletion sampled from a log-normal distribution with coefficient of variation (Linfcv)(uniform distribution)

Dcv
Imprecision in the prescription of stock depletion among years, expressed as a coefficient of variation (uniform distribution)

Btbias
Persistent bias in the prescription of current stock biomass sampled from a uniform-log distribution with range (Btbias)(uniform distribution)

Btcv
Imprecision in the prescription of current stock biomass among years expressed as a coefficient of variation (uniform distribution)

Fcurbiascv
Persistent bias in the prescription of current fishing mortality rate sampled from a log-normal distribution with coefficient of variation (Fcurcv)(uniform distribution)

Fcurcv
Imprecision in the prescription of current fishing mortality rate among years expressed as a coefficient of variation (uniform distribution)

hcv
Persistent bias in steepness (uniform distribution)

Icv
Observation error in realtive abundance index expressed as a coefficient of variation (uniform distirbution)

maxagecv
Bias in the prescription of maximum age (uniform distribution)

beta
A parameter controlling hyperstability/hyperdepletion. I^beta therefore values below 1 lead to hyperstability (an index that decreases slower than true abundance) and values above 1 lead to hyperdepletion (an index that decreases more rapidly than true abundance)(uniform distribution)

Reccv
Bias in the knowledge of recent recruitment strength (uniform distribution)

Irefcv
Bias in the knowledge of the relative abundance index at BMSY (uniform distribution)

Brefcv
Bias in the knowledge of BMSY (uniform distribution)

Crefcv
Bias in the knowledge of MSY(uniform distribution)

Note

Its questionable whether the hyperstability/hyperdepletion should be categorised as an observation model characteristic as it is most often driven by fleet dynamics (and therefore should be in the fleet object). Oh well its here and you might want to make it hyperstable beta < 1 or hyperdeplete beta > 1, only.

Objects from the Class

Objects can be created by calls of the form `new('Obs')`

Examples

```
showClass('Obs')
#> Class "Obs" [package "DLMtool"]
#>
#> Slots:
#>
#> Name:        Name     LenMcv       Cobs    Cbiascv  CAA_nsamp    CAA_ESS
#> Class:  character    numeric    numeric    numeric    numeric    numeric
#>
#> Name:   CAL_nsamp    CAL_ESS      CALcv       Iobs        Mcv        Kcv
#> Class:    numeric    numeric    numeric    numeric    numeric    numeric
#>
#> Name:        t0cv     Linfcv      LFCcv      LFScv       B0cv     FMSYcv
#> Class:    numeric    numeric    numeric    numeric    numeric    numeric
#>
#> Name:    FMSY_Mcv  BMSY_B0cv        rcv    Dbiascv        Dcv     Btbias
#> Class:    numeric    numeric    numeric    numeric    numeric    numeric
#>
#> Name:        Btcv Fcurbiascv     Fcurcv        hcv        Icv   maxagecv
#> Class:    numeric    numeric    numeric    numeric    numeric    numeric
#>
#> Name:       Reccv     Irefcv     Crefcv     Brefcv       beta
#> Class:    numeric    numeric    numeric    numeric    numeric
```