

# Class 'Fleet'

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The component of the operating model that controls fishing dynamics

## Slots

### Name

Name of the Fleet object

### nyears

The number of years for the historical simulation

### Spat\_targ

Distribution of fishing in relation to spatial biomass:  $F$  is proportional to  $B^{\text{Spat\_targ}}$  (uniform distribution)

### Esd

Inter-annual variability in fishing mortality rate

### EffYears

Vector of verticies, years at which to simulate varying relative effort

### EffLower

Lower bound on relative effort corresponding to EffYears (uniform distribution)

### EffUpper

Uppper bound on relative effort corresponding to EffYears (uniform distribution)

### LFS

Shortest length that is fully vulnerable to fishing (uniform distribution)

### L5

Shortest length corresponding ot 5 percent vulnerability (uniform distribution)

### Vmaxlen

The vulnerability of the longest (oldest) fish (uniform distribution)

### SelYears

Vector of verticies, index for years at which historical selectivity pattern changed. If left empty, historical selectivity is constant

### AbsSelYears

Optional values for SelYears, used for plotting only. Must be of same length as SelYears

### L5Lower

Optional vector of values of length SelYears, specifying lower limits of L5 (use `ChooseSelect` function to set these)

### L5Upper

Optional vector of values of length SelYears, specifying upper limits of L5 (use `ChooseSelect` function to set these)

### LFSLower

Optional vector of values of length SelYears, specifying lower limits of LFS (use `ChooseSelect` function to set these)

### LFSUpper

Optional vector of values of length SelYears, specifying upper limits of LFS (use `ChooseSelect` function to set these)

### VmaxLower

Optional vector of values of length SelYears, specifying lower limits of Vmaxlen (use `ChooseSelect` function to set these)

### VmaxUpper

Optional vector of values of length SelYears, specifying upper limits of Vmaxlen (use `ChooseSelect` function to set these)

### qinc

Average percentage change in fishing efficiency (uniform distribution)(applicable only to forward projection and input controls)

### qcv

Inter-annual variability in fishing efficiency (uniform distribution)(applicable only to forward projection and input controls)

### isRel

Are the selectivity parameters relative to size-of-maturity? TRUE or FALSE

### CurrentYr

The current calendar year (final year) of the historical simulations (e.g. 2011)

## Objects from the Class

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

## Examples

```
showClass('Fleet')
#> Class "Fleet" [package "DLMtool"]
#>
#> Slots:
#>
#> Name:      Name      nyears  Spat_targ      Esd      qinc      qcv
#> Class:    character  numeric  numeric      numeric  numeric  numeric
#>
#> Name:      EffYears  EffLower  EffUpper  SelYears  AbsSelYears  L5
#> Class:      numeric   numeric   numeric   numeric   numeric      numeric
#>
#> Name:      LFS      Vmaxlen  L5Lower  L5Upper  LFSLower  LFSUpper
#> Class:      numeric   numeric   numeric   numeric   numeric      numeric
#>
#> Name:      VmaxLower  VmaxUpper      isRel  CurrentYr
#> Class:      numeric   numeric   character  numeric
```

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