

# Basic plot example

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A short vignette showing how to take the results of a single model and plot survey length frequency distributions along with fitted distributions estimated by the basic model

## Loading data and formatting

WD should be “LFEM/vignettes” folder.

```
getwd()

## [1] "C:/Users/LukeB/Documents/LFEM/vignettes"

#install.packages("gridBase")
library(grid)
library(gridBase)

load("../data/test.Rdata")
load("../data/lfdat_MON.Rdata")

source("../R/plot_lfem.R")
```

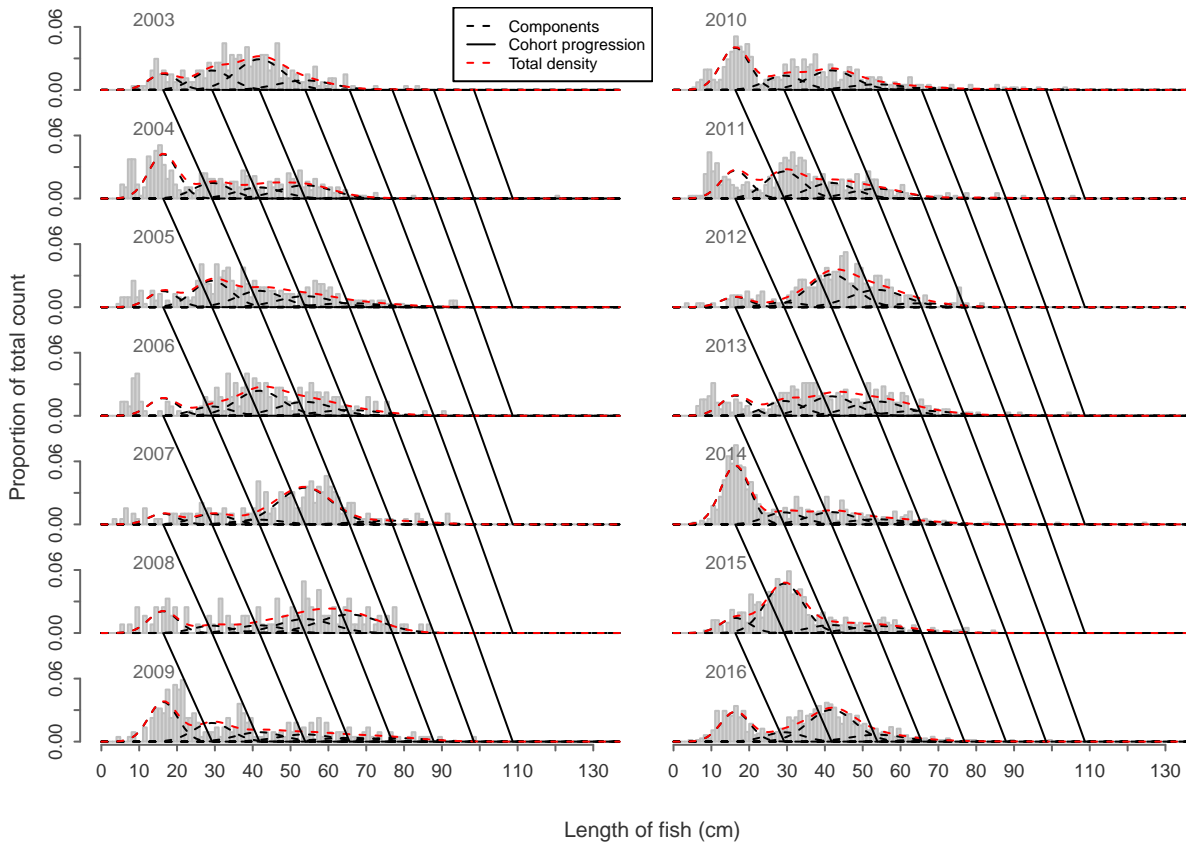
Load the length frequency data and the model we’ve just run. These can then be input into the `plot.lfem` function.

```
args(plot.lfem)

## function (model, Lengths, Survey.num, xlimit)
## NULL
```

- `model` is the model
- `Lengths` is the same data input used for the model run(s)
- `Survey.num` allows selection of a particular survey you would like to plot. Should be the number of the survey if their names were arranged alphabetically. In this case it is the IE-IGFS but could also be EVHOE(1) or SP-PORC(3) for the anglerfish example.
- `xlim` allows the `xlimit` of the length frequency histograms to be set. Allowing you to focus on the section of the histograms where more data is available.

```
plot.lfem(model=test,Lengths=lfdat,Survey.num=2,xlimit=140)
```



If there is no model and you have all results stored in lists from a sensitivity analysis then just create a list with Mu, Sd and Lambda

```
plot.obj<-list(Mu=test$Mu,Sd=test$Sd,Lambda= test$Lambda)
```

```
plot.lfem(plot.obj,Lengths=lfdat,Survey.num=2,xlimit=140)
```

Note that the cohort progression lines will only be in the right place if plot window dimensions are adjusted before plotting.