Histogram

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This file documents functions used for drawing histograms in the Price-Promotion-Analysis papers.

```
if(!require(CommonFunctions)){
  devtools::install_github('georgegui/CommonFunctions')
  library(CommonFunctions)
}
```

```
## Loading required package: CommonFunctions
```

```
library(data.table)
```

```
## data.table 1.10.4.3
##   The fastest way to learn (by data.table authors): https://www.datacamp.com/courses/data-analysis-t
##   Documentation: ?data.table, example(data.table) and browseVignettes("data.table")
##   Release notes, videos and slides: http://r-datatable.com
```

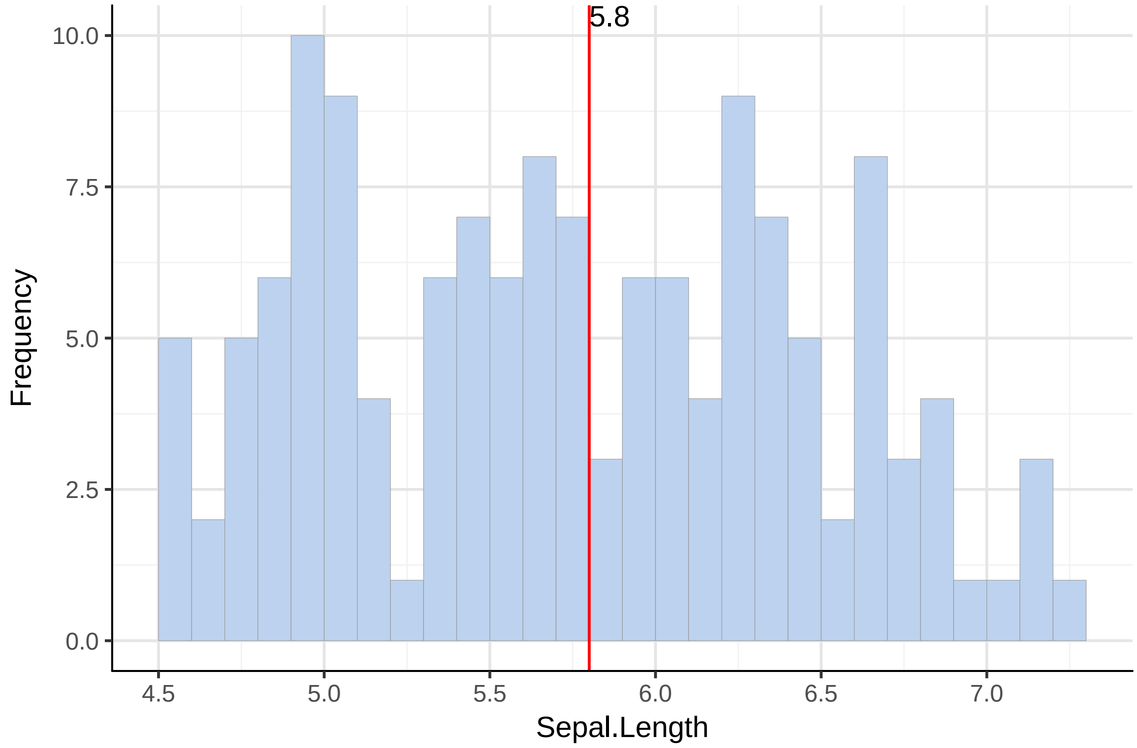
```
library(gridExtra)
```

Basic Plot

The function will plot the median of the distribution as a vertical red line. It will also automatically asign meaningful ticks on the x-axis. The default will include 0 into the axis and will truncate the outliers.

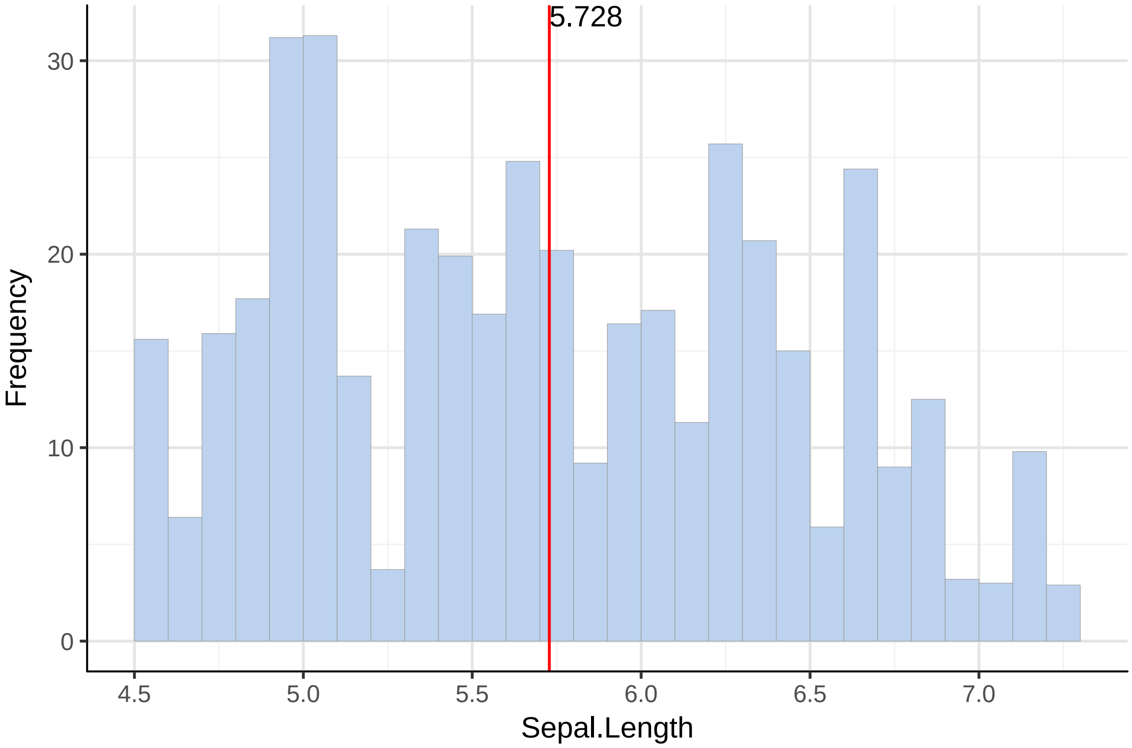
```
iris <- data.table(iris)
ggplot_list <- list()
```

```
ggplot_list[[1]] <- PrettyPlot(iris, 'Sepal.Length', include_0 = F)
ggplot_list[[1]]
```



Weight

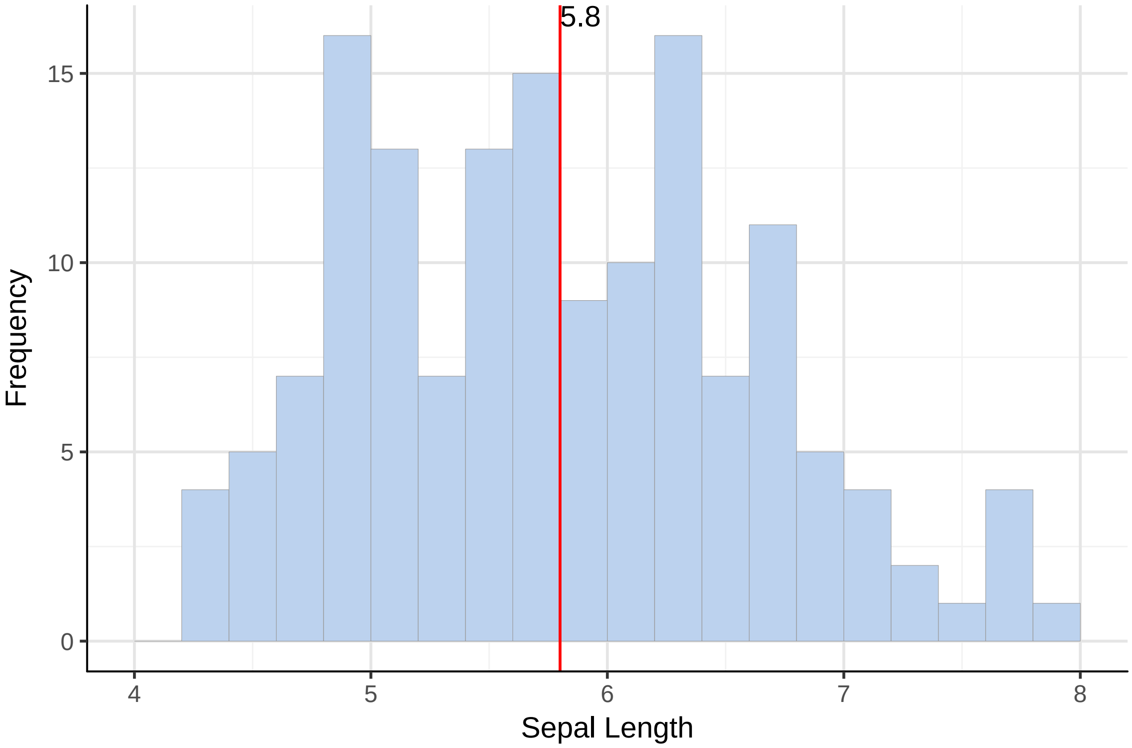
```r
ggplot_list[[2]] <- PrettyPlot(iris, 'Sepal.Length', include_0 = F,
                               weight = 'Sepal.Width')
ggplot_list[[2]]
```



Adjust x-axis

We can also first specifiy X-axis and pass it to the plot function.

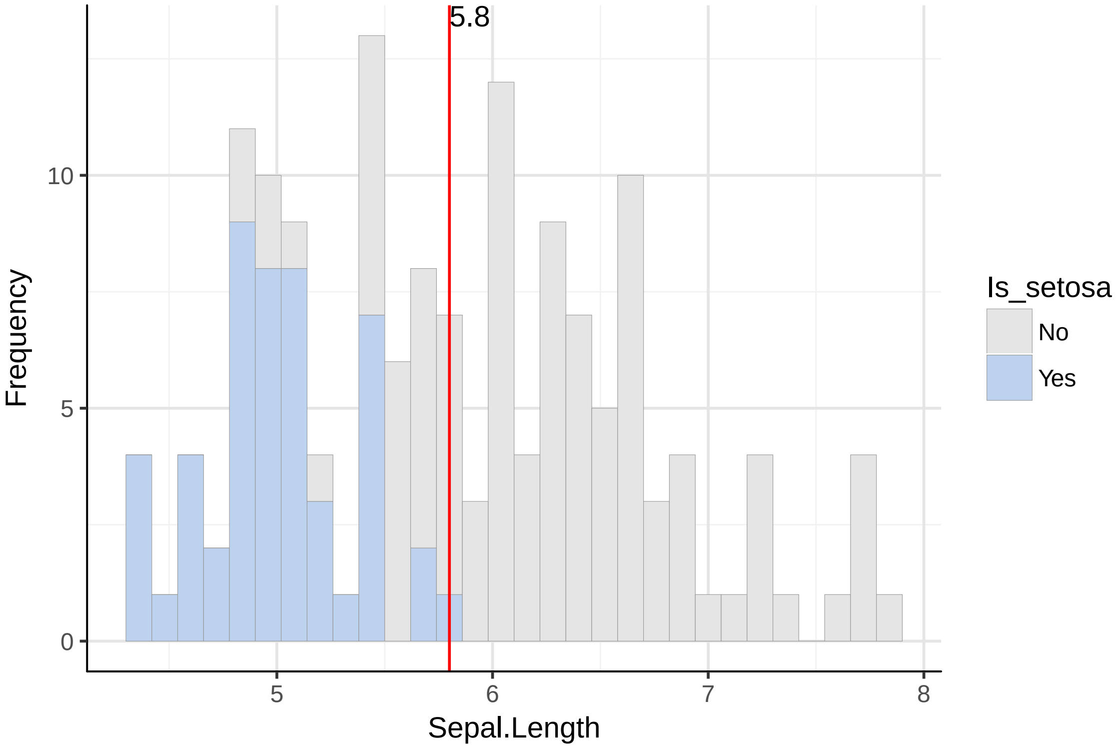
```
my_axis <- GenerateAxisX(iris$Sepal.Length, min_x = 4, max_x = 8, xtitle = 'Sepal Length')
ggplot_list[[3]] <- PrettyPlot(iris, 'Sepal.Length', scalex = my_axis)
ggplot_list[[3]]
```



Two colors

```
iris[, is_setosa := Species == 'setosa']

ggplot_list[[4]] <- PrettyPlot(
  iris, 'Sepal.Length', include_0 = F, x_full_range = T,
  color_legend = 'is_setosa')
ggplot_list[[4]]
```



Plot Together

```r
grid.arrange(grobs = ggplot_list)
```