

MVA_Visualization

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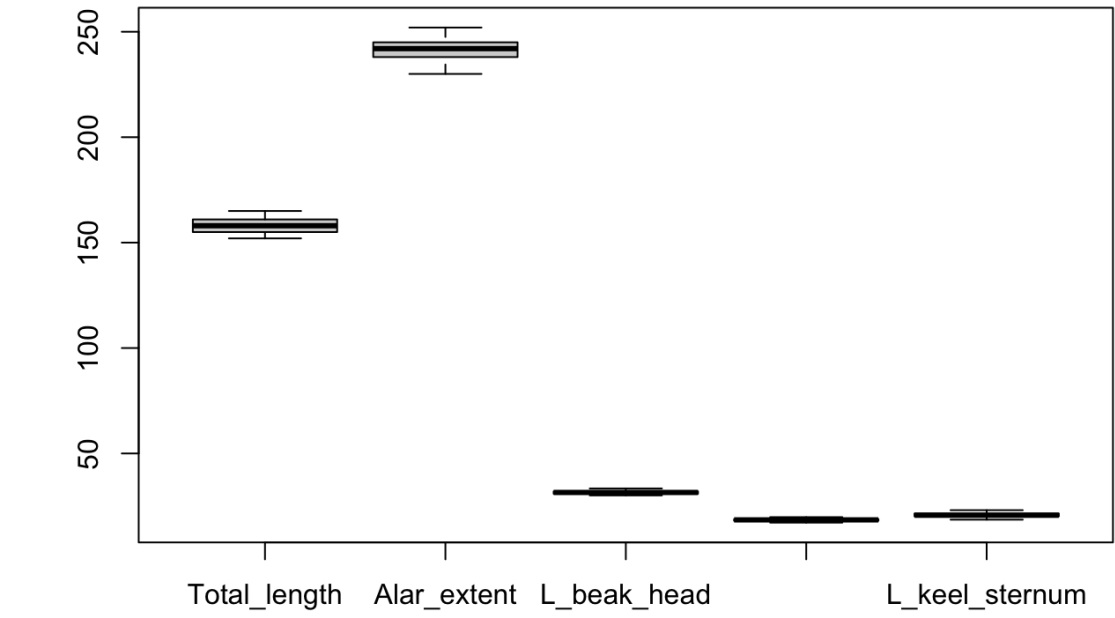
```
library(readr)
sparrows <- read_csv("/Users/icepainter/Desktop/assignments/Bumpus_sparrows.csv")

## Rows: 49 Columns: 6
## — Column specification —————
## Delimiter: ",",
## chr (1): Survivorship
## dbl (5): Total_length, Alar_extent, L_beak_head, L_humerous, L_keel_sternum
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.

str(sparrows)

## spc_tbl_ [49 × 6] (S3: spec_tbl_df/tbl_df/tbl/data.frame)
## $ Survivorship : chr [1:49] "S" "S" "S" "S" ...
## $ Total_length : num [1:49] 156 154 153 153 155 163 157 155 164 158 ...
## $ Alar_extent : num [1:49] 245 240 240 236 243 247 238 239 248 238 ...
## $ L_beak_head : num [1:49] 31.6 30.4 31 30.9 31.5 32 30.9 32.8 32.7 31 ...
## $ L_humerous : num [1:49] 18.5 17.9 18.4 17.7 18.6 19 18.4 18.6 19.1 18.8 ...
## $ L_keel_sternum: num [1:49] 20.5 19.6 20.6 20.2 20.3 20.9 20.2 21.2 21.1 22 ...
## - attr(*, "spec")=
## .. cols(
## .. Survivorship = col_character(),
## .. Total_length = col_double(),
## .. Alar_extent = col_double(),
## .. L_beak_head = col_double(),
## .. L_humerous = col_double(),
## .. L_keel_sternum = col_double()
## .. )
## - attr(*, "problems")=<externalptr>

# Visulize boxplot ~ in general
boxplot(sparrows[,2:6])
```



```
# load packages
library(lattice)
library(ggribes)
library(ggvis)
library(ggthemes)
library(cowplot)

##
## Attaching package: 'cowplot'

## The following object is masked from 'package:ggthemes':
##
##   theme_map

library(gapminder)
library(gganimate)

## Loading required package: ggplot2

##
## Attaching package: 'ggplot2'

## The following object is masked from 'package:ggvis':
##
##   resolution

## No renderer backend detected. gganimate will default to writing frames to separate files
## Consider installing:
## - the 'gifski' package for gif output
## - the 'av' package for video output
## and restarting the R session

##
## Attaching package: 'gganimate'

## The following object is masked from 'package:ggvis':
##
##   view_static

library(ggplot2)

# Visulize boxplot
library(car)

## Loading required package: carData

attach(sparrows)

#Plots
sparr.birds <- data.frame(as.numeric(rownames(sparrows)),sparrows[,2:6])
labs.diagonal <- c("Bird Number","Total length","Alar extent","L. beak & head","L. humerous","L. keel & sternum")

scatterplotMatrix(~Total_length+Alar_extent+L_beak_head+L_humerous+L_keel_sternum | Survivorship, data=sparr.bird
s, var.labels=labs.diagonal,cex.labels=0.7, diagonal="boxplot",smooth=FALSE,reg.line=FALSE,pch=c(1,16),col=rep("b
lack",2), legend.plot=FALSE)

## Warning in applyDefaults(diagonal, defaults = list(method = "adaptiveDensity"),
## : unnamed diag arguments, will be ignored

## Warning in plot.window(...): "reg.line" is not a graphical parameter

## Warning in plot.window(...): "legend.plot" is not a graphical parameter

## Warning in plot.xy(xy, type, ...): "reg.line" is not a graphical parameter

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## Warning in title(...): "reg.line" is not a graphical parameter

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## Warning in title(...): "legend.plot" is not a graphical parameter

## Warning in axis(side = side, at = at, labels = labels, ...): "reg.line" is not
## a graphical parameter

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NOT a graphical parameter

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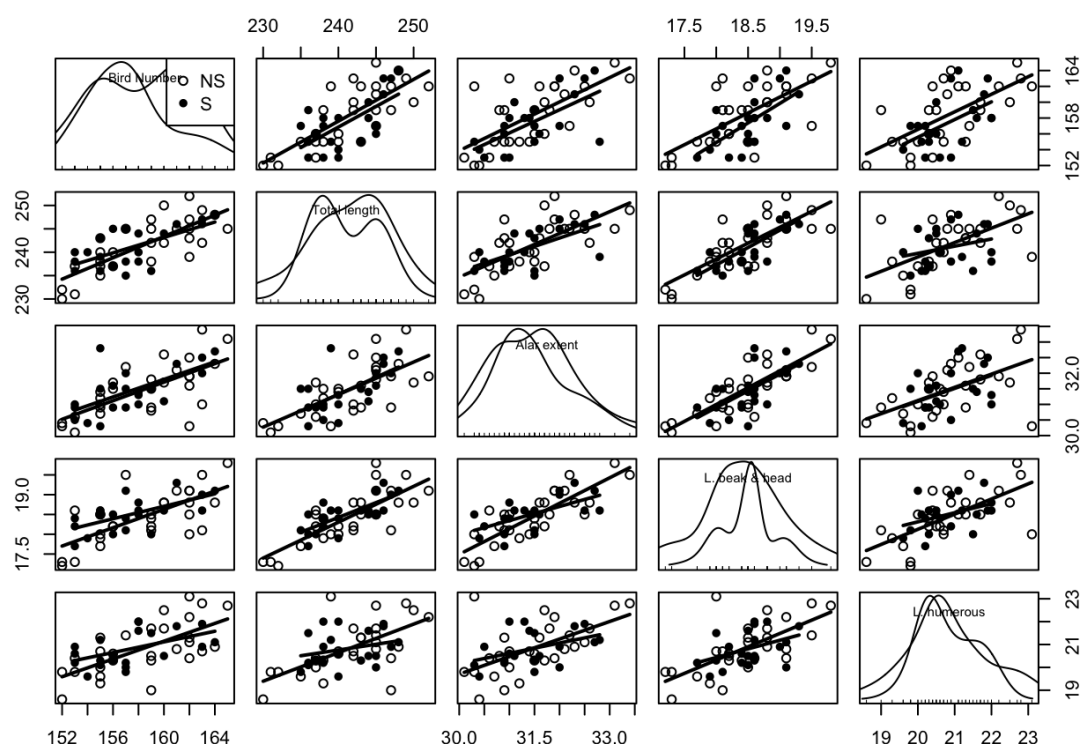
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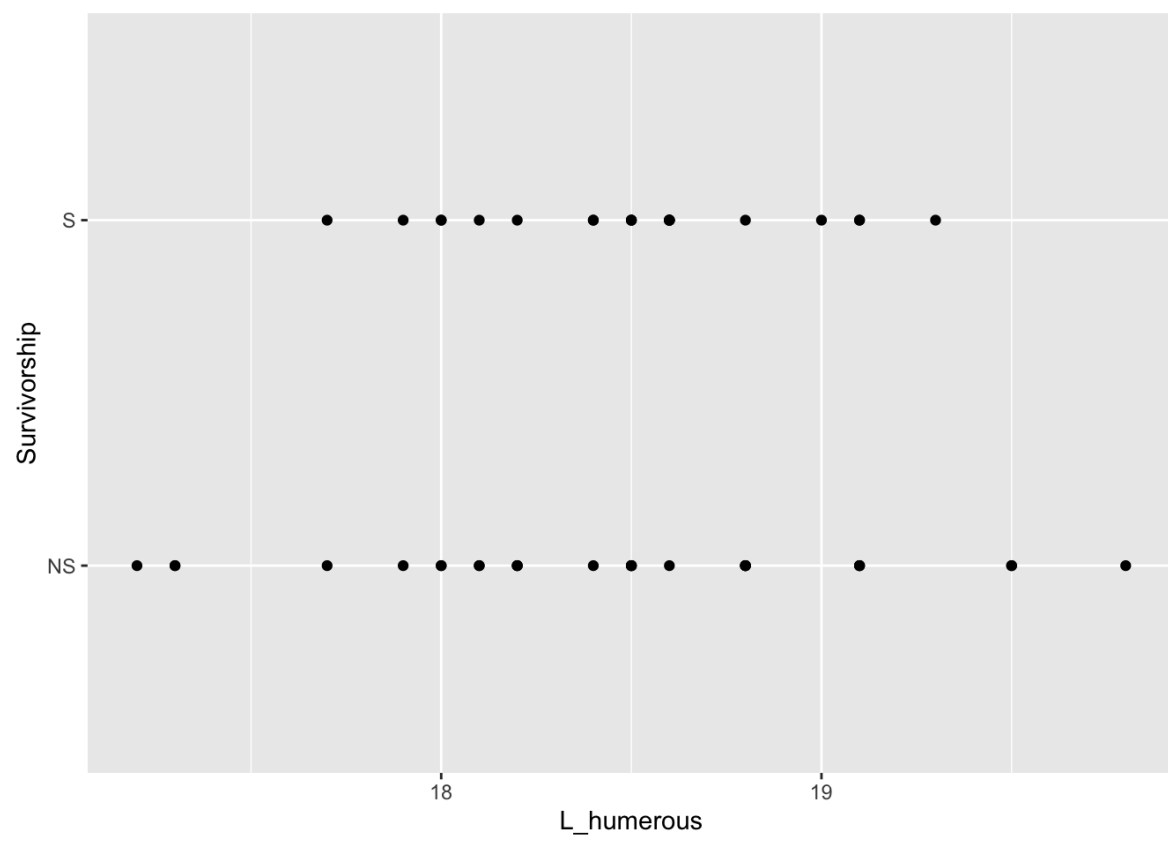
```
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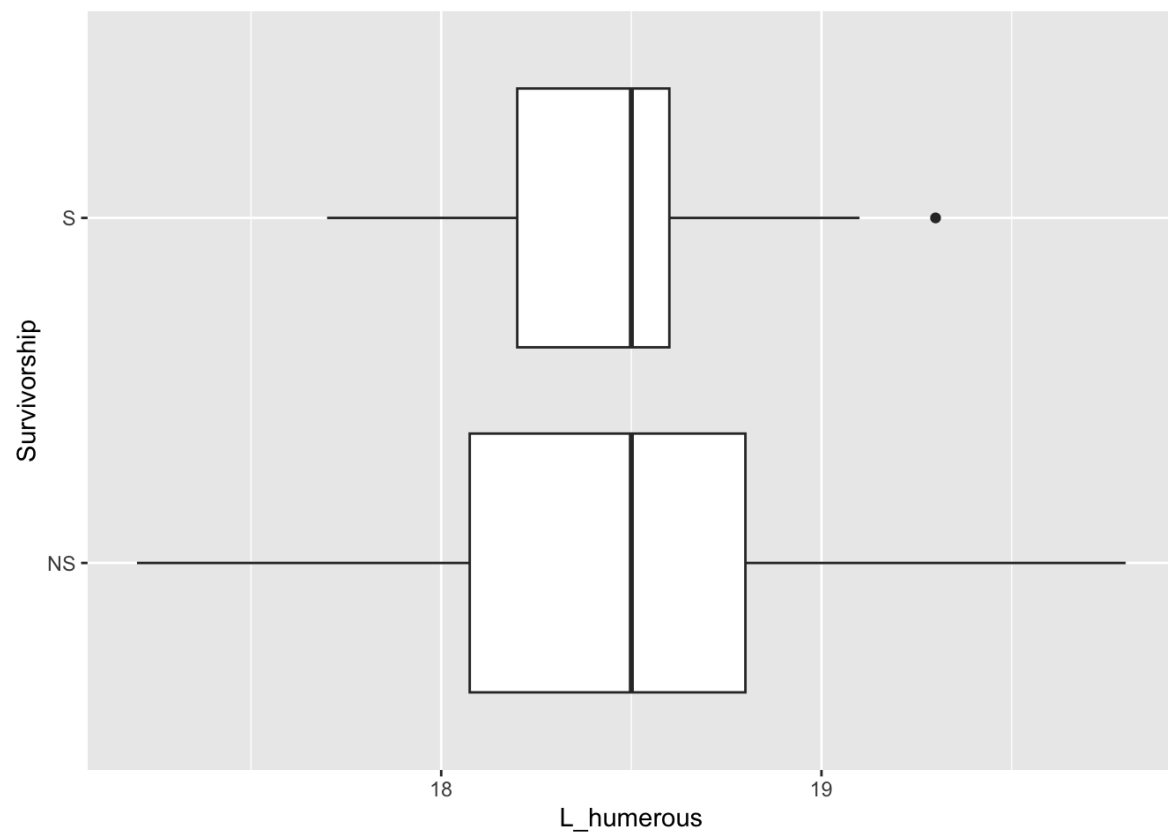


```
# ggplot
```

```
ggplot(sparrows, aes(x=L_humerous, y=Survivorship)) + geom_point()
```

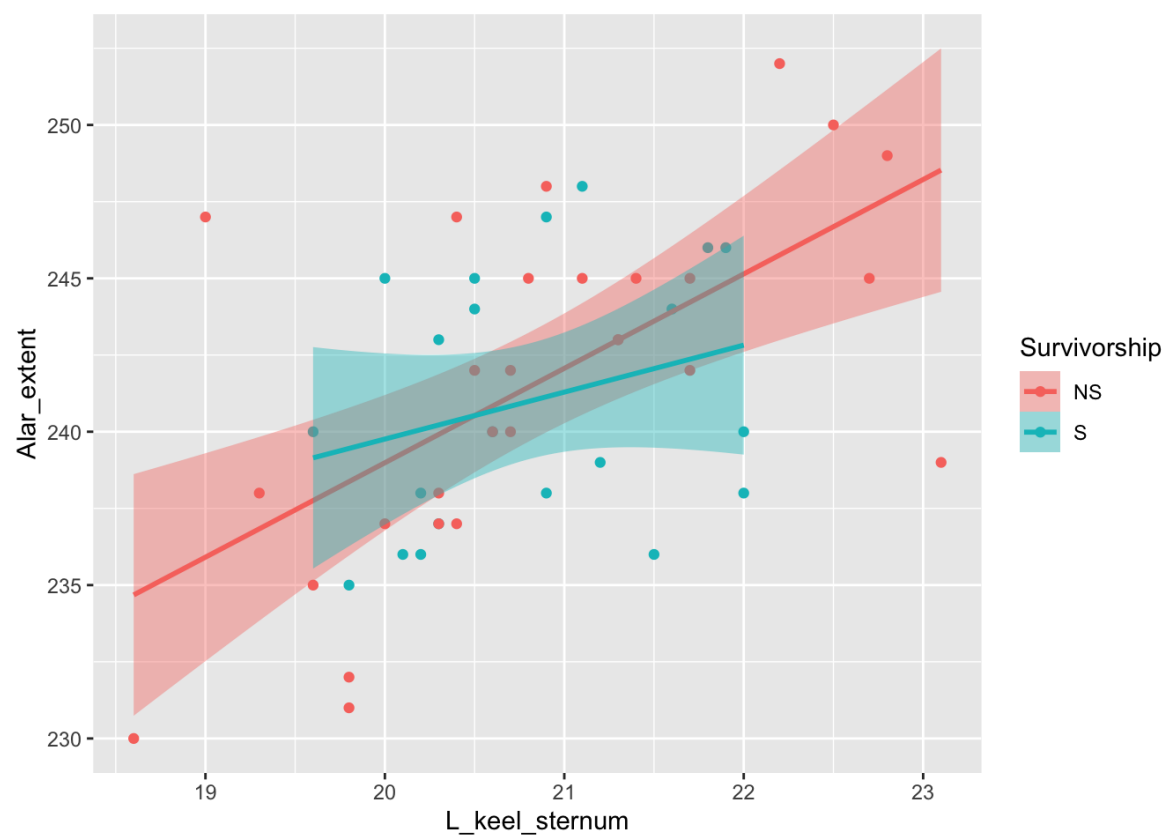


```
ggplot(sparrows, aes(x=L_humorous, y=Survivorship)) + geom_boxplot()
```

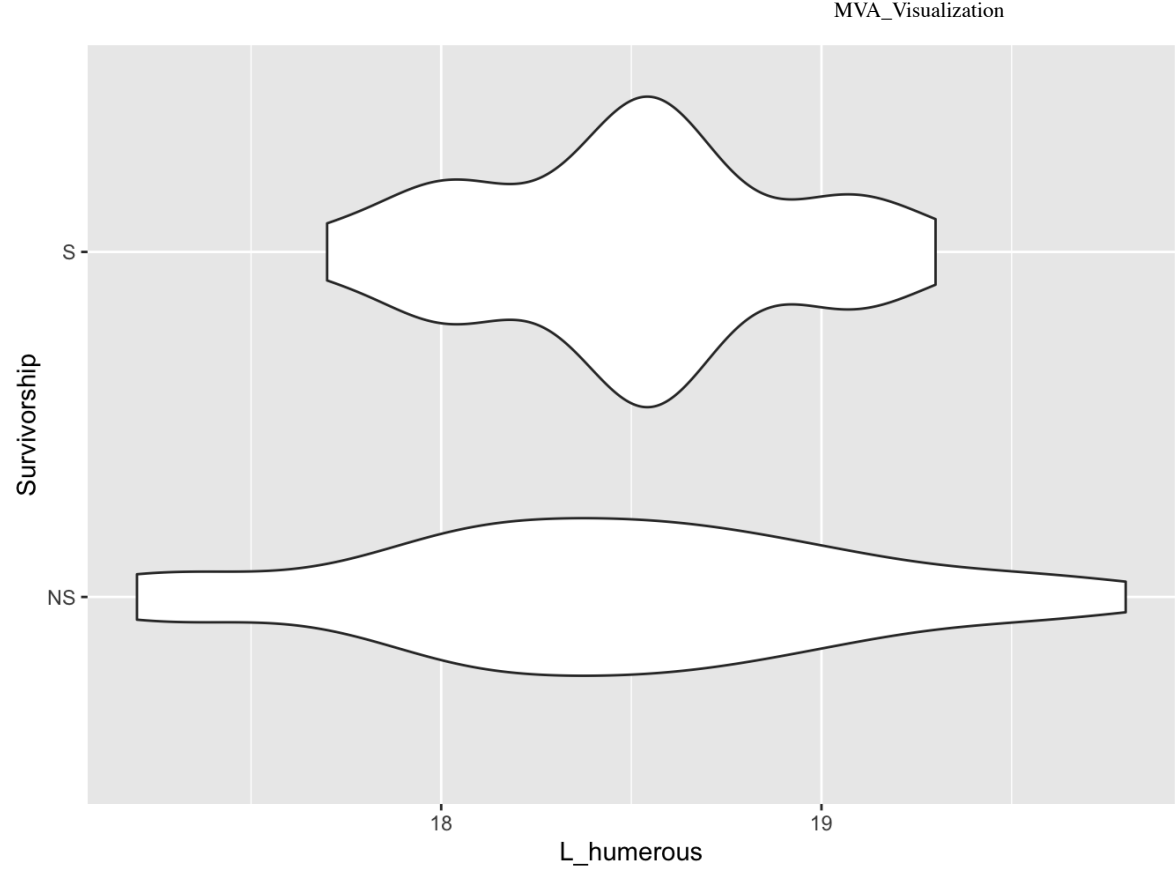


```
ggplot(sparrows, aes(x=L_keel_sternum, y=Alar_extent, fill=Survivorship, color=Survivorship)) + geom_point() + geom_smooth(method=lm)
```

```
## `geom_smooth()` using formula = 'y ~ x'
```



```
ggplot(sparrows, aes(x=L_humerous, y=Survivorship)) + geom_violin()
```



```
ggplot(sparrows, aes(x=Total_length, fill=Survivorship, color=Survivorship)) + geom_density(alpha=0.3, aes(y=..scaled..))
```

```
## Warning: The dot-dot notation ('..scaled..') was deprecated in ggplot2 3.4.0.
## i Please use `after_stat(scaled)` instead.
```

