

Laboratorio-3.R

User

2021-08-29

```
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# 8/26/2021
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#####

# Importacion de datos -----

esp.url <- paste0("https://raw.githubusercontent.com/mgtagle/", "PrincipiosEstadistica2021/main/cuadro1.
inventario <- read.csv(esp.url)
head(inventario)

##   Arbol Fecha Especie Posicion Vecinos Diametros Altura
## 1     1    12      F         C        4      15.3   14.78
## 2     2    12      F         D        3      17.8   17.07
## 3     3     9      C         D        5      18.2   18.28
## 4     4     9      H         S        4       9.7    8.79
## 5     5     7      H         I        6      10.8   10.18
## 6     6    10      C         I        3      14.1   14.90

# Autoestudio

freq_especie <- table(inventario$Especie)
freq_especie

##
##  C  F  H
## 22 14 14

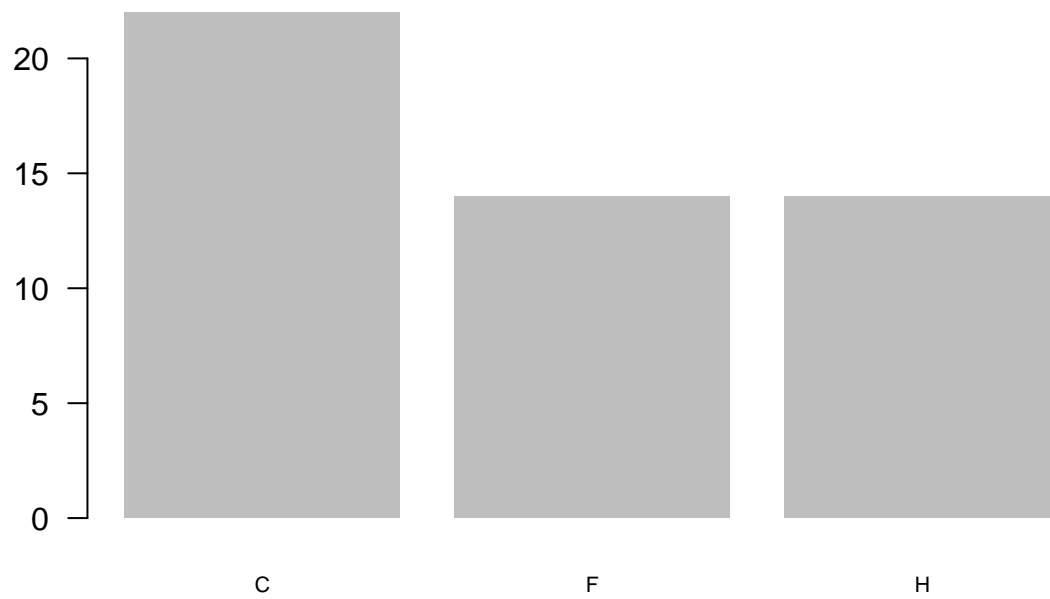
prop_especie <- freq_especie / sum(freq_especie)
prop_especie

##
##    C    F    H
## 0.44 0.28 0.28

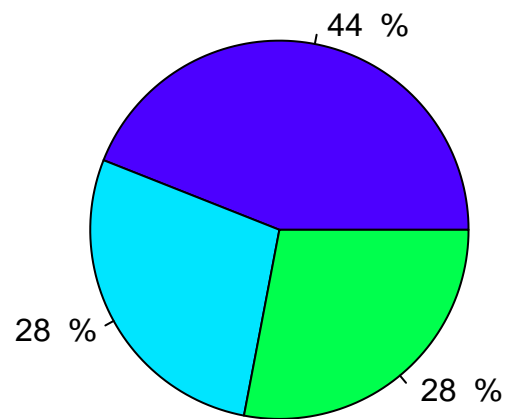
perc_especie = 100 * prop_especie
perc_especie

##
##    C    F    H
## 44 28 28

barplot(freq_especie, las = 1, border = NA, cex.names = 0.7)
```

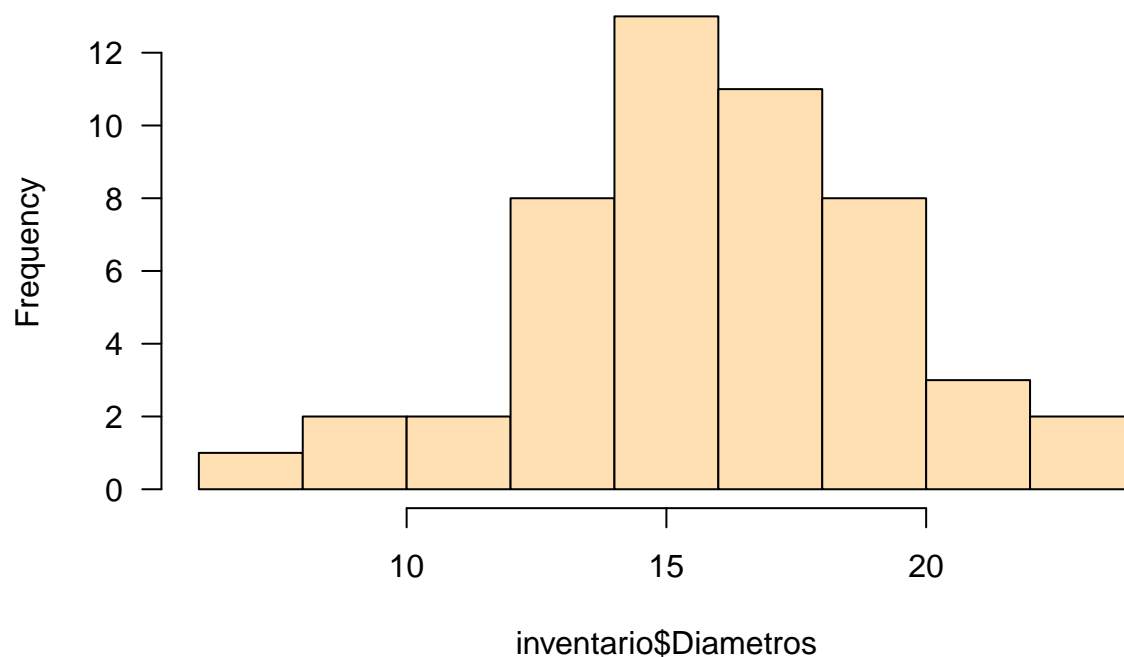


```
pie(freq_especie, col = topo.colors(4),  
     labels = paste(levels(inventario$Especie), round(perc_especie, 2), "%"))
```



```
# Histograma  
diam_hist <- hist(inventario$Diametros, las = 1, col = '#ffe0b3')
```

Histogram of inventario\$Diametros



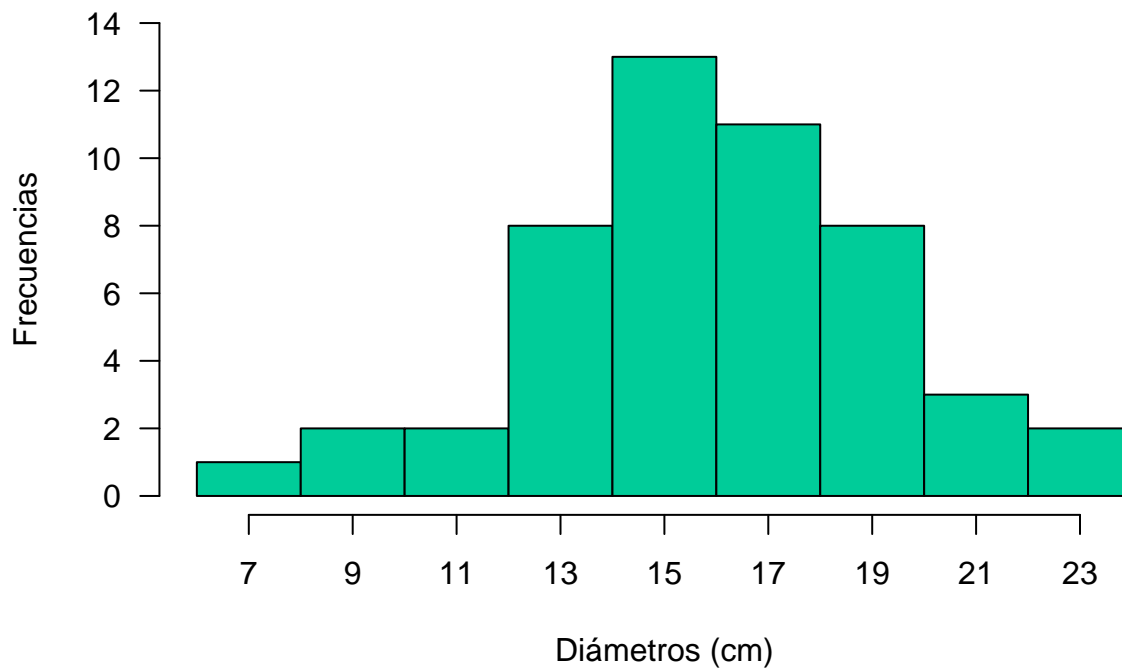
```
diam_hist
```

```
## $breaks
## [1]  6  8 10 12 14 16 18 20 22 24
##
## $counts
## [1]  1  2  2  8 13 11  8  3  2
##
## $density
## [1] 0.01 0.02 0.02 0.08 0.13 0.11 0.08 0.03 0.02
##
## $mids
## [1]  7  9 11 13 15 17 19 21 23
##
## $xname
## [1] "inventario$Diametros"
##
## $equidist
## [1] TRUE
##
## attr(,"class")
## [1] "histogram"
```

```
diam_hist$breaks
```

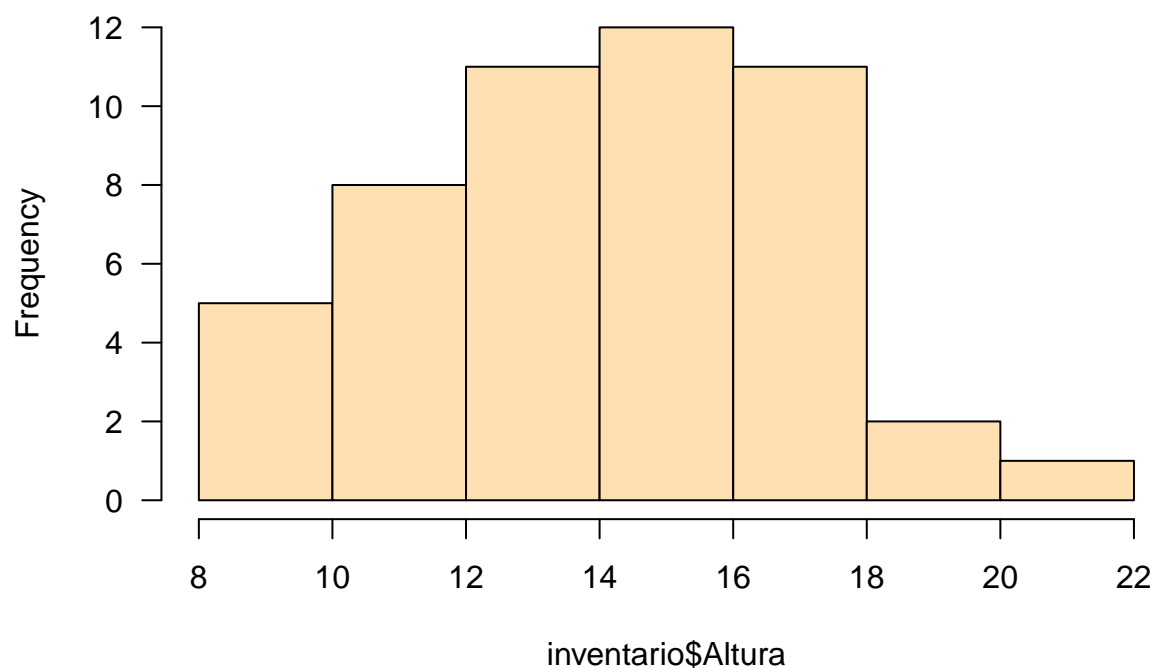
```
## [1]  6  8 10 12 14 16 18 20 22 24
```

```
h1 <- hist(inventario$Diametros, xaxt = "n",
           breaks = c(6, 8, 10, 12, 14, 16, 18, 20, 22, 24),
           col = "#00cc99", xlab="Diámetros (cm)",
           ylab= "Frecuencias", main = "", las = 1,
           ylim = c(0,14))
axis(1, h1$mids)
```



```
# Autoestudio
altura_hist <- hist(inventario$Altura, las = 1, col = '#ffe0b3')
```

Histogram of inventario\$Altura



```
altura_hist
```

```
## $breaks
## [1]  8 10 12 14 16 18 20 22
##
## $counts
## [1]  5  8 11 12 11  2  1
##
## $density
## [1] 0.05 0.08 0.11 0.12 0.11 0.02 0.01
##
## $mids
## [1]  9 11 13 15 17 19 21
##
## $xname
## [1] "inventario$Altura"
##
## $equidist
## [1] TRUE
##
## attr(,"class")
## [1] "histogram"
```

```
altura_hist$breaks
```

```
## [1]  8 10 12 14 16 18 20 22
```

```
H2 <- hist(inventario$Altura, xaxt = "n",
           breaks = c(6, 8, 10, 12, 14, 16, 18, 20, 22,24),
           col = "#00cc99", xlab="Alturas (cm)",
           ylab= "Frecuencias",main = "",las = 1,
           ylim = c(0,14))
axis(1, H2$mids)
```

