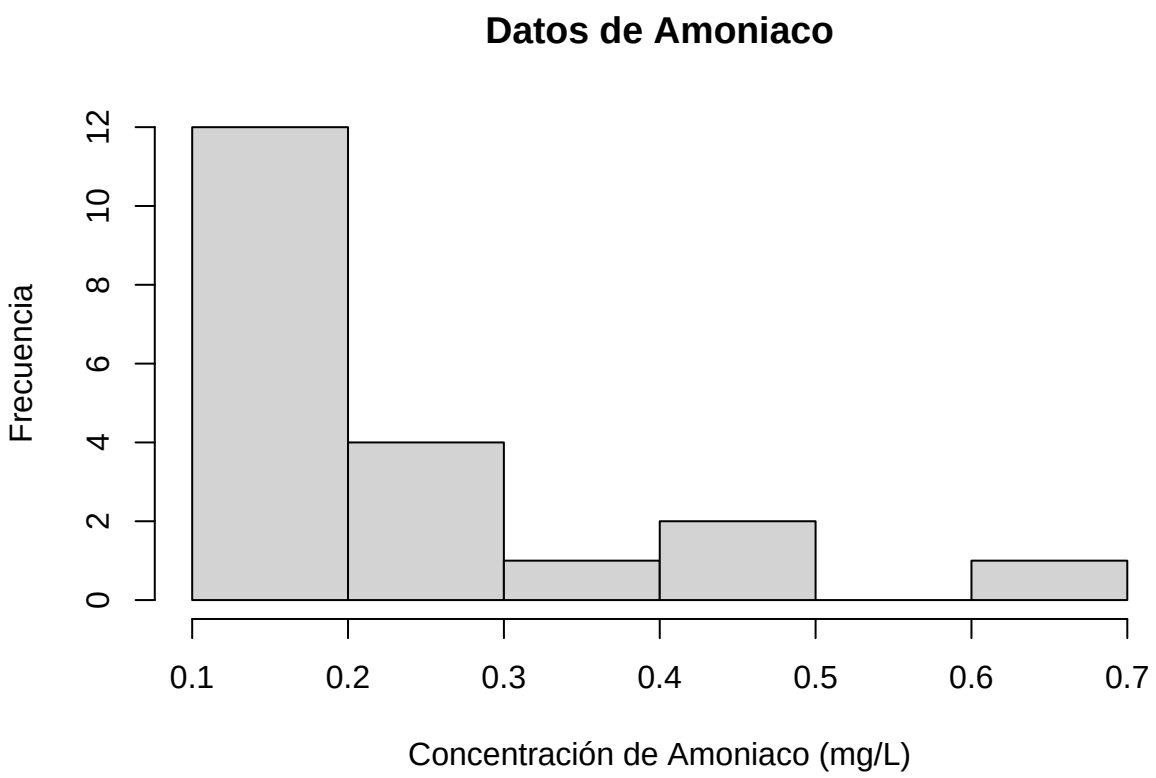
Análisis de datos

Renzo-Pepe-Victoriano

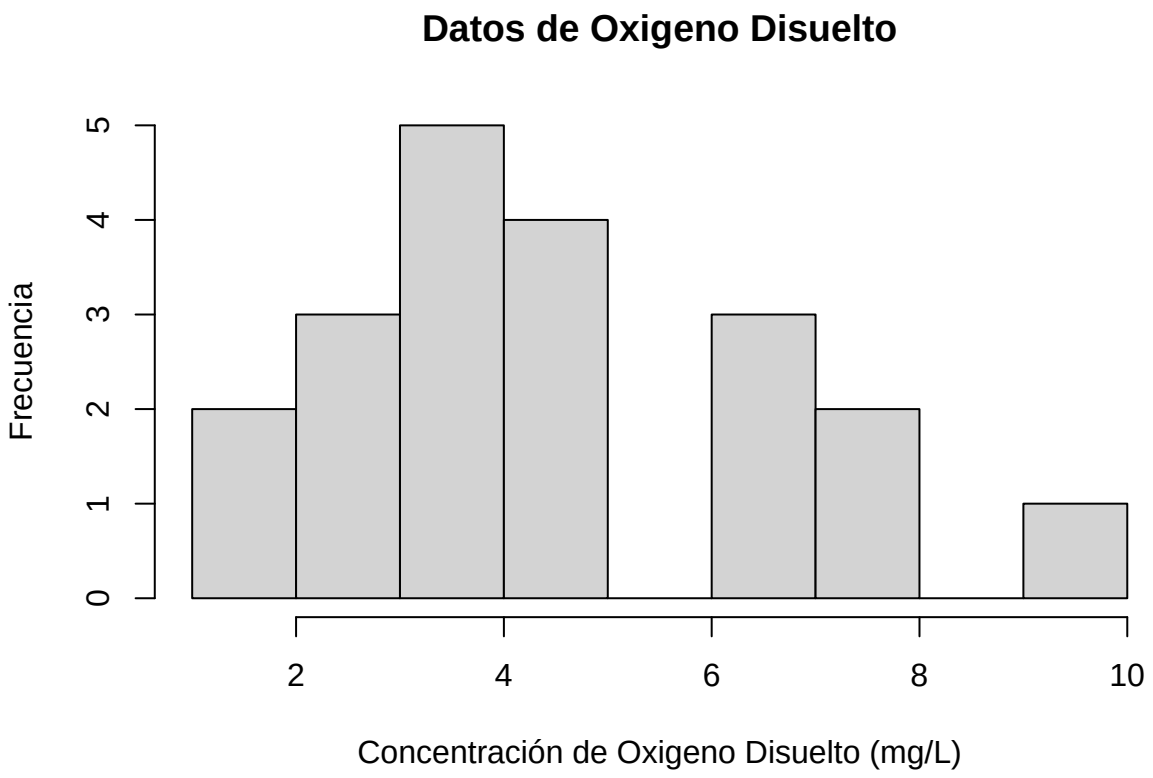
19/10/2021

```
truchas <- read_excel ("datos_truchas1.xlsx", sheet = 1)
```

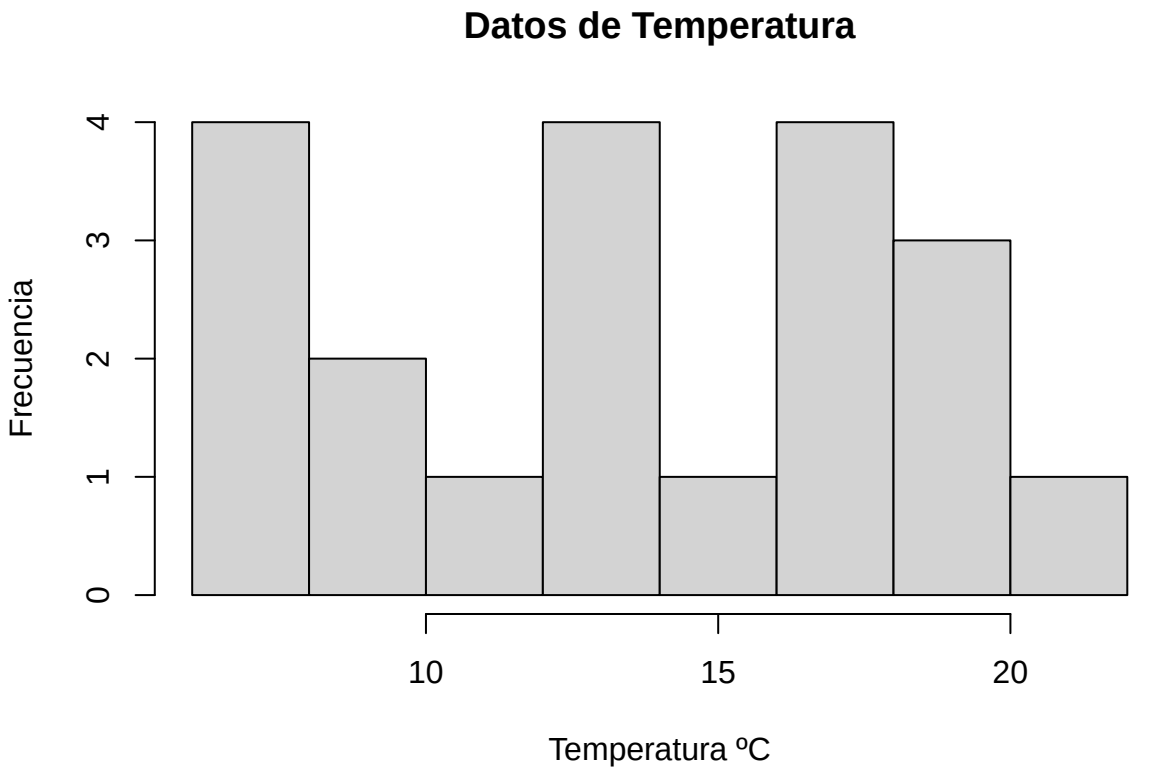
```
hist (truchas$AMONIACO, main = "Datos de Amoniaco", xlab = "Concentración de Amoniaco (mg/L)", ylab = "
```




```
hist(truchas$OXIGENO, main = "Datos de Oxigeno Disuelto", xlab = "Concentración de Oxigeno Disuelto (mg/
```




```
hist(truchas$TEMPERATURA, main = "Datos de Temperatura", xlab = "Temperatura ºC", ylab = "Frecuencia")
```




```
truchas%>%
  filter(ESTANQUES=="DECANTADOR")%>%
  summarize(mean(TEMPERATURA),sd(TEMPERATURA),max(TEMPERATURA),min(TEMPERATURA),mean(AMONIACO),mean(OXI
```

```
## # A tibble: 1 x 6
##   `mean(TEMPERATURA)` `sd(TEMPERATURA)` `max(TEMPERATURA)` `min(TEMPERATURA)`
##                 <dbl>             <dbl>              <dbl>              <dbl>
## 1                13.6              4.62                 19                  8
## # ... with 2 more variables: mean(AMONIACO) <dbl>, mean(OXIGENO) <dbl>
```

```
tablat<-truchas%>%
  filter(ESTANQUES=="DECANTADOR")%>%
  summarize(mean(TEMPERATURA),sd(TEMPERATURA),max(TEMPERATURA),min(TEMPERATURA))

knitr::kable(tablat,caption = "Estadisticos Descriptivos")
```

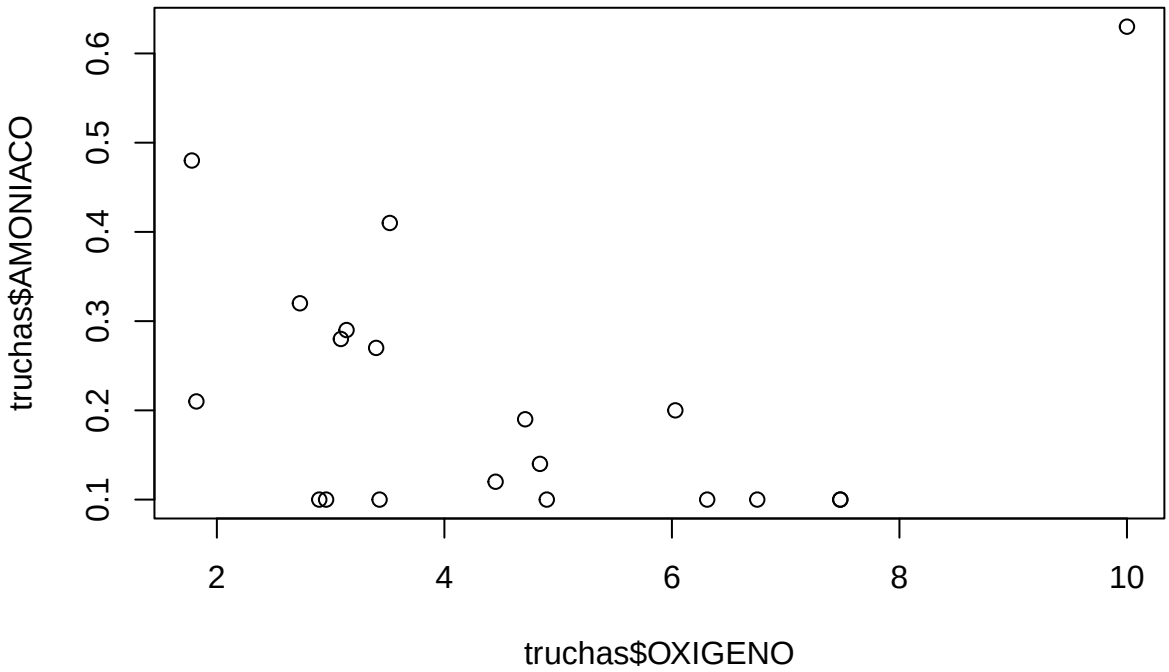
Table 1: Estadisticos Descriptivos

mean(TEMPERATURA)	sd(TEMPERATURA)	max(TEMPERATURA)	min(TEMPERATURA)
13.6	4.615192	19	8

```
cor(truchas$AMONIACO,truchas$OXIGENO)
```

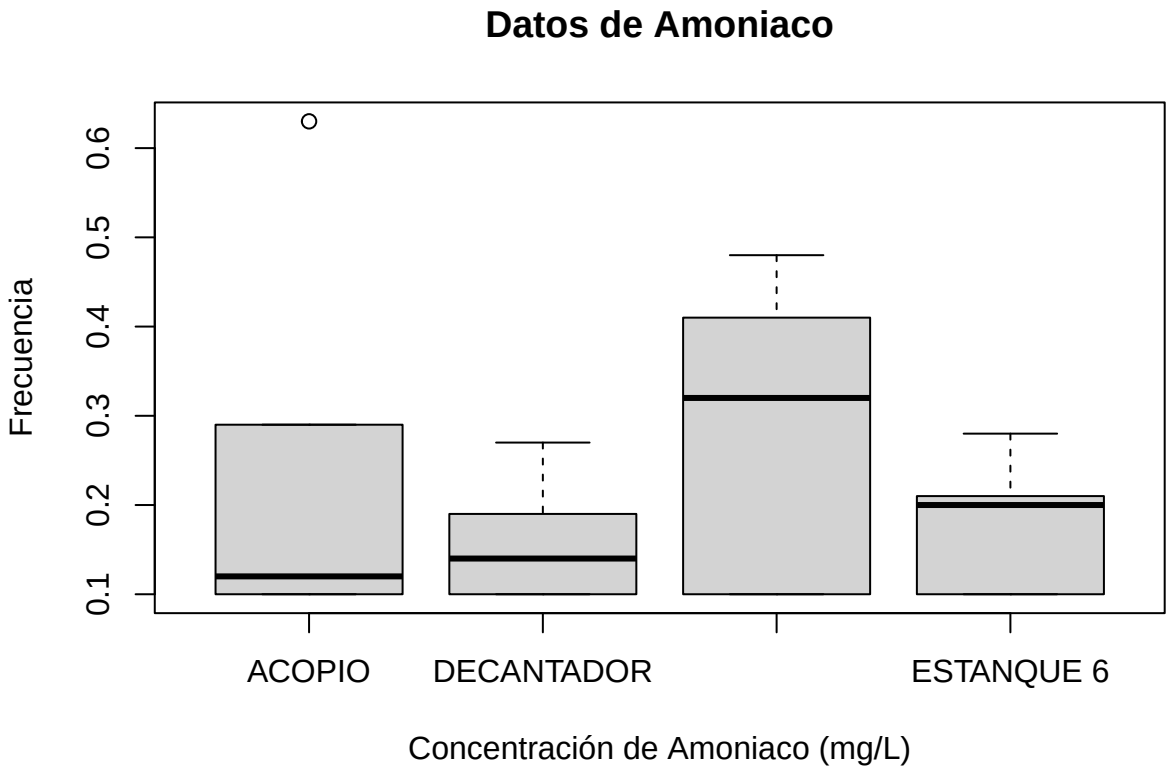
```
## [1] 0.02888807
```

```
plot(truchas$AMONIACO~truchas$OXIGENO)
```



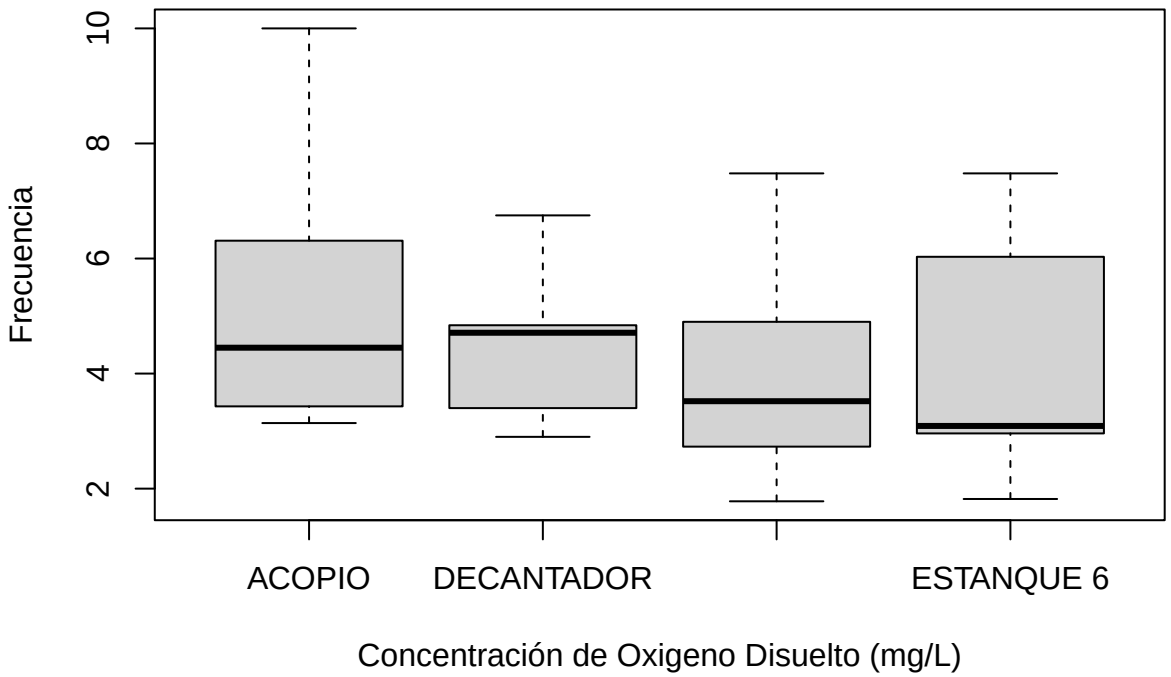

```
# NO EXISTE CORRELACION
```

```
boxplot (truchas$AMONIACO ~truchas$ESTANQUES, main = "Datos de Amoniaco", xlab = "Concentración de Amon
```

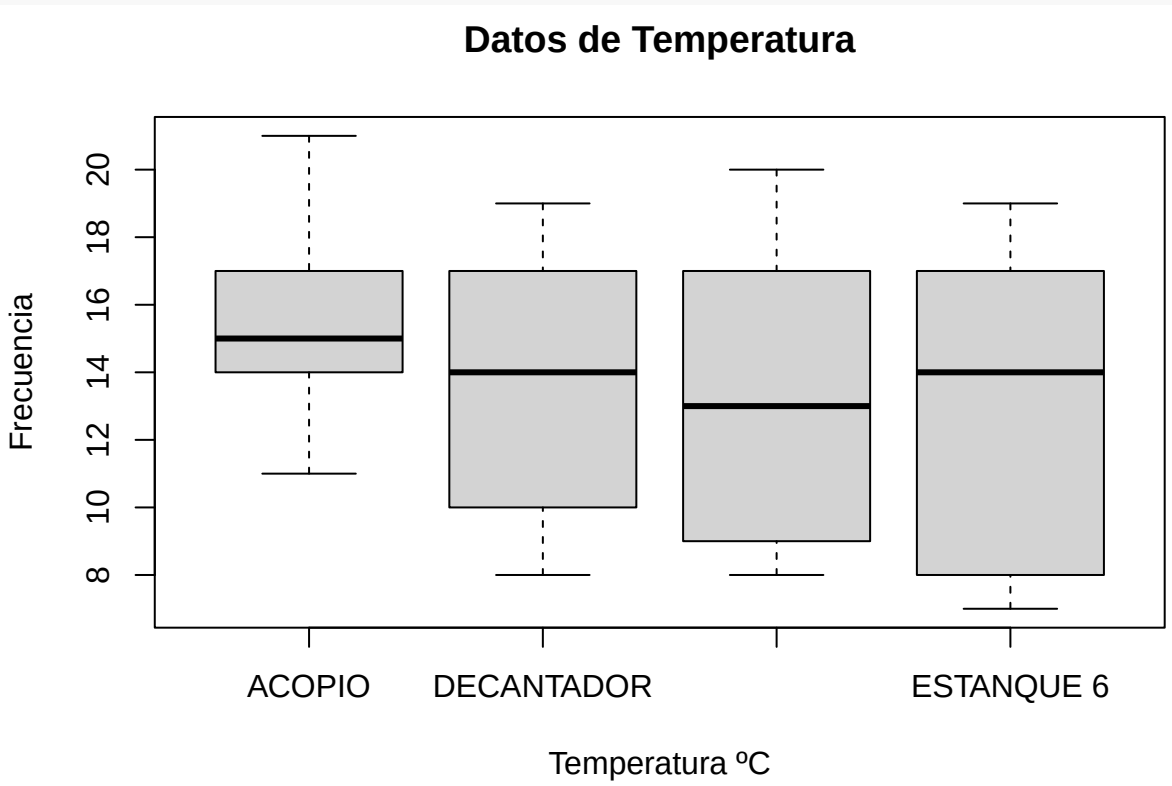



```
# EN LA GRAFICA DE AMONIACO, EN EL ESTANQUE ACOPIO SE APRECIA UN DATO ATIPICO #

boxplot (truchas$OXIGENO ~truchas$ESTANQUES, main = "Datos de Oxigeno Disuelto", xlab = "Concentración
```



```
boxplot (truchas$TEMPERATURA ~truchas$ESTANQUES, main = "Datos de Temperatura", xlab = "Temperatura ºC"
```




```
summary(truchas)
```

```
##       FECHA                         ESTANQUES            AMONIACO
##  Min.   :2015-09-06 00:00:00   Length:20          Min.   :0.1000
##  1st Qu.:2015-10-01 00:00:00   Class :character   1st Qu.:0.1000
##  Median :2015-11-05 00:00:00   Mode  :character   Median :0.1650
##  Mean   :2015-11-04 09:36:00                      Mean   :0.2170
##  3rd Qu.:2015-12-01 00:00:00                      3rd Qu.:0.2825
##  Max.   :2016-01-10 00:00:00                      Max.   :0.6300
##     OXIGENO        TEMPERATURA
##  Min.   : 1.780   Min.   : 7.00
##  1st Qu.: 3.058   1st Qu.: 9.75
##  Median : 3.985   Median :14.00
##  Mean   : 4.586   Mean   :13.90
##  3rd Qu.: 6.100   3rd Qu.:17.00
##  Max.   :10.000   Max.   :21.00
```

```
str(truchas$TEMPERATURA)
```

```
##  num [1:20] 11 8 7 8 14 9 8 10 15 13 ...
```

```
str(truchas$OXIGENO)
```

```
##  num [1:20] 6.31 7.48 7.48 6.75 3.43 4.9 2.96 2.9 4.45 2.73 ...
```

```
str(truchas$amonia)
```

```
## Warning: Unknown or uninitialised column: `amonia`.
```

```
##  NULL
```

```
table(truchas$TEMPERATURA)
```

```
##
##  7  8  9 10 11 13 14 15 17 19 20 21
##  1  3  1  1  1  1  3  1  4  2  1  1
```

```
table(truchas$OXIGENO)
```

```
##
## 1.78 1.82 2.73  2.9 2.96 3.09 3.14  3.4 3.43 3.52 4.45 4.71 4.84  4.9 6.03 6.31
##    1    1    1    1    1    1    1    1    1    1    1    1    1    1    1    1
## 6.75 7.48   10
##    1    2    1
```

```
table(truchas$AMONIACO)
```

```
##
##  0.1 0.12 0.14 0.19  0.2 0.21 0.27 0.28 0.29 0.32 0.41 0.48 0.63
##    8    1    1    1    1    1    1    1    1    1    1    1    1
```

```
# TODOS LOS DATOS ESTAN BALANCEADOS
```