## Análisis de datos exploratorio

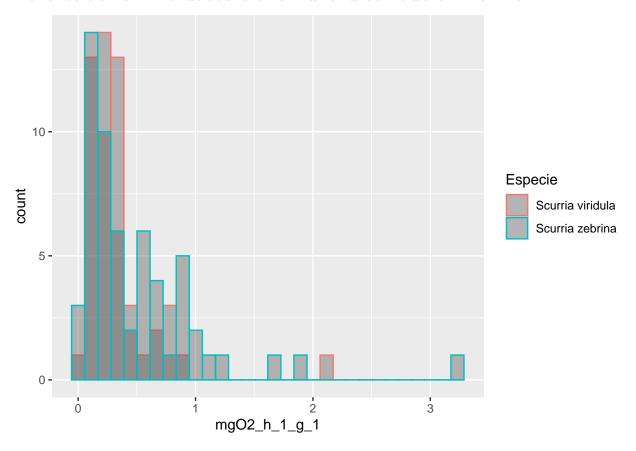
#### Paz Caballero

#### 04 November 2021

```
## # A tibble: 6 x 12
     Especie Localidad Etiqueta Tratamiento `Dias Trat.` Largo Ancho `Peso Boyante`
     <fct>
             <fct>
                           <dbl> <fct>
                                                     <dbl> <dbl> <dbl>
                                                                                  <dbl>
## 1 Scurri~ Talcaruca
                              63 500
                                                        15
                                                            13.7
                                                                   11.6
                                                                                 0.113
## 2 Scurri~ Talcaruca
                              66 500
                                                            20.6
                                                        15
                                                                   17.2
                                                                                 0.407
## 3 Scurri~ Talcaruca
                              67 500
                                                            15.0
                                                                                 0.164
## 4 Scurri~ Talcaruca
                                                            33.4
                              15 500
                                                        15
                                                                   27.5
                                                                                 1.86
## 5 Scurri~ Talcaruca
                              55 500
                                                        15
                                                            19.1
                                                                   15.3
                                                                                 0.370
## 6 Scurri~ Talcaruca
                              26 500
                                                        15
                                                            15.4
                                                                 14.8
                                                                                 0.195
## # ... with 4 more variables: Pendiente <dbl>, Tiempo <dttm>, ml_g_h 14C <dbl>,
       mg02_h_1_g_1 <dbl>
## # A tibble: 6 x 12
     Especie Localidad Etiqueta Tratamiento `Dias Trat.` Largo Ancho `Peso Boyante`
                                                     <dbl> <dbl> <dbl>
     <fct>
             <fct>
                           <dbl> <fct>
                                                                                  <dbl>
## 1 Scurri~ Los Moll~
                              25 1500
                                                        45
                                                            23.1
                                                                  19.7
                                                                                 0.207
## 2 Scurri~ Los Moll~
                              57 1500
                                                        45
                                                            25.0
                                                                   21.4
                                                                                 1.18
## 3 Scurri~ Los Moll~
                               1 1500
                                                            22.7
                                                                                 0.670
## 4 Scurri~ Los Moll~
                              57 1500
                                                            14.0
                                                                   12.3
                                                        45
                                                                                 0.186
## 5 Scurri~ Los Moll~
                              39 1500
                                                        45
                                                            15.3
                                                                   13.4
                                                                                 0.641
## 6 Scurri~ Los Moll~
                                                            22.4
                              66 1500
                                                        45
                                                                   20.0
                                                                                 0.397
## # ... with 4 more variables: Pendiente <dbl>, Tiempo <dttm>, ml_g_h 14C <dbl>,
       mg02_h_1_g_1 < db1>
##
                Especie
                                Localidad
                                               Etiqueta
                                                             Tratamiento
##
    Scurria viridula:52
                           Los Molles:49
                                           Min.
                                                             500:36
                                            1st Qu.: 25.00
    Scurria zebrina :58
                           Talcaruca:61
                                                             800 :36
##
                                            Median: 48.00
                                                              1500:38
##
                                                   : 49.58
                                           Mean
##
                                            3rd Qu.: 63.75
##
                                            Max.
                                                   :351.00
##
      Dias Trat.
                                          Ancho
                                                       Peso Boyante
                         Largo
##
    Min.
           :15.00
                                             :10.74
                                                              :0.1129
                            :12.87
                                     Min.
                                                      Min.
    1st Qu.:15.00
                    1st Qu.:18.39
                                     1st Qu.:15.99
                                                      1st Qu.:0.3608
##
    Median :30.00
                    Median :23.06
                                     Median :20.20
                                                      Median : 0.7285
##
    Mean
           :25.64
                    Mean
                            :23.27
                                             :20.37
                                                      Mean
                                                              :0.7567
                                     Mean
##
    3rd Qu.:30.00
                    3rd Qu.:27.74
                                     3rd Qu.:24.16
                                                      3rd Qu.:1.0638
           :45.00
   Max.
                    Max.
                            :35.23
                                     Max.
                                             :32.74
                                                      Max.
                                                             :1.8560
##
      Pendiente
                           Tiempo
                                                        ml_g_h 14C
##
   Min.
           :0.01040
                      Min.
                              :1899-12-31 00:13:00
                                                             :0.08199
   1st Qu.:0.01760
                       1st Qu.:1899-12-31 00:16:15
                                                      1st Qu.:0.13876
  Median :0.02090
                      Median: 1899-12-31 00:19:07
                                                      Median: 0.16478
   Mean
           :0.02485
                      Mean
                              :1899-12-31 00:20:23
                                                      Mean
                                                             :0.19590
   3rd Qu.:0.02838
                      3rd Qu.:1899-12-31 00:24:07
                                                      3rd Qu.:0.22371
```

```
##
   Max.
           :0.08550
                      Max.
                             :1899-12-31 00:33:15
                                                    Max.
                                                           :0.67408
##
    mg02_h_1_g_1
##
   Min.
           :0.01307
   1st Qu.:0.14230
##
##
   Median : 0.27614
   Mean
           :0.42262
##
   3rd Qu.:0.57602
##
           :3.24390
##
   {\tt Max.}
## tibble [110 x 12] (S3: tbl_df/tbl/data.frame)
  $ Especie
                  : Factor w/ 2 levels "Scurria viridula",..: 2 2 2 2 2 2 1 1 1 1 ...
                  : Factor w/ 2 levels "Los Molles",
"Talcaruca": 2 2 2 2 2 2 2 2 2 ...
  $ Localidad
##
                  : num [1:110] 63 66 67 15 55 26 68 15 69 74 ...
   $ Etiqueta
   $ Tratamiento : Factor w/ 3 levels "500", "800", "1500": 1 1 1 1 1 1 1 1 1 1 ...
##
   $ Dias Trat. : num [1:110] 15 15 15 15 15 15 15 15 15 ...
                  : num [1:110] 13.7 20.6 15 33.4 19.1 ...
##
   $ Largo
   $ Ancho
                  : num [1:110] 11.7 17.2 12.9 27.5 15.3 ...
##
  $ Peso Boyante: num [1:110] 0.113 0.407 0.164 1.856 0.37 ...
  $ Pendiente : num [1:110] 0.018 0.0284 0.0175 0.0184 0.031 0.0189 0.0302 0.0184 0.0855 0.0609 ...
                  : POSIXct[1:110], format: "1899-12-31 00:15:00" "1899-12-31 00:17:15" ...
   $ Tiempo
##
   $ ml_g_h 14C : num [1:110] 0.142 0.224 0.138 0.145 0.244 ...
## $ mgO2_h_1_g_1: num [1:110] 1.257 0.5507 0.8397 0.0782 0.6611 ...
```

### Para saber si mis datos tienen una distribución normal



# Según el histograma mis datos no tienen una distribución normal

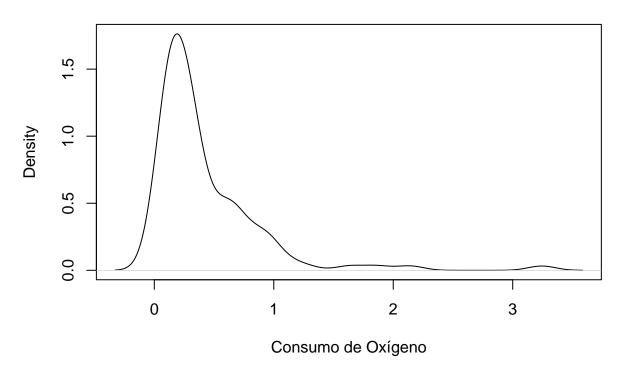
```
## [1] 0.4226234
```

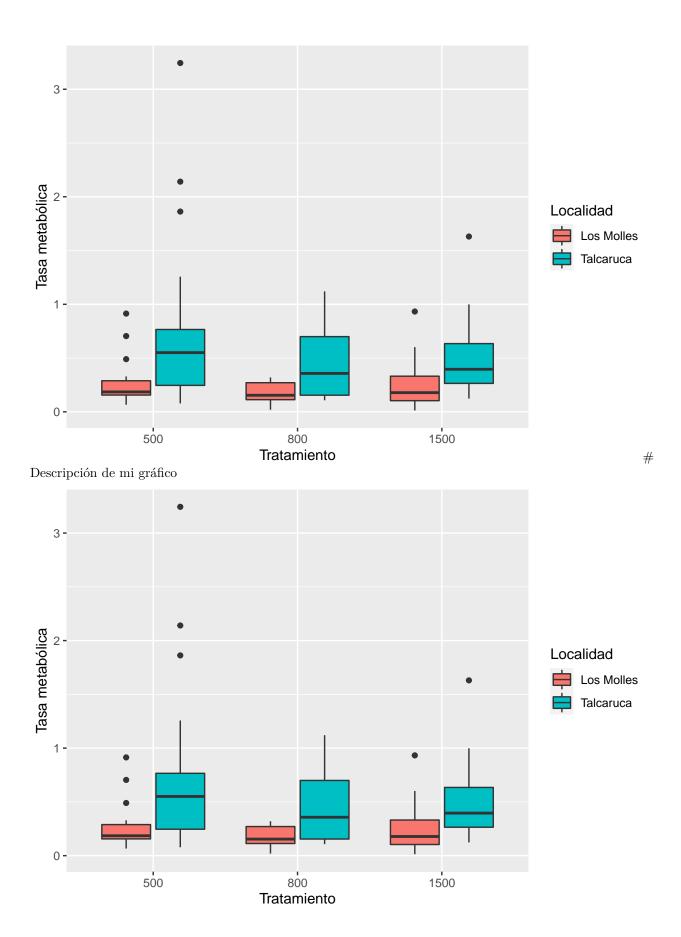
## [1] 0.4615397

## [1] 0.01306658 3.24389798

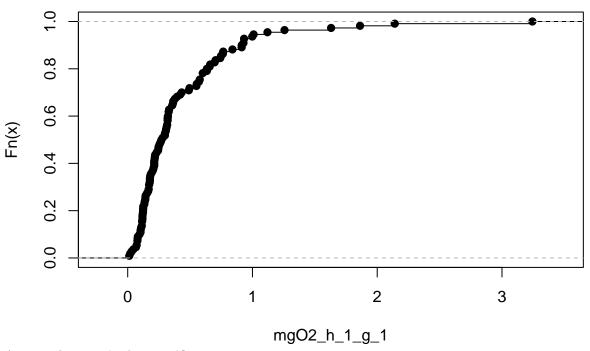
## 0% 25% 50% 75% 100% ## 0.01306658 0.14230309 0.27613837 0.57601902 3.24389798

## Densidad empírica

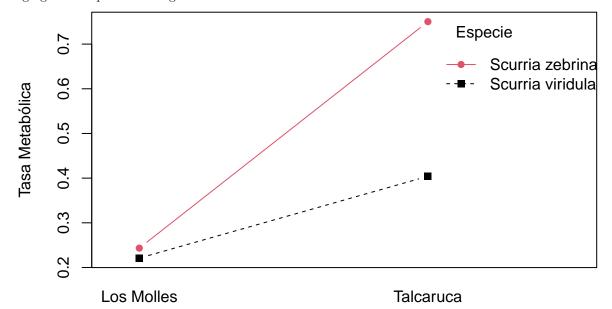




# Distribución acumulada empírica

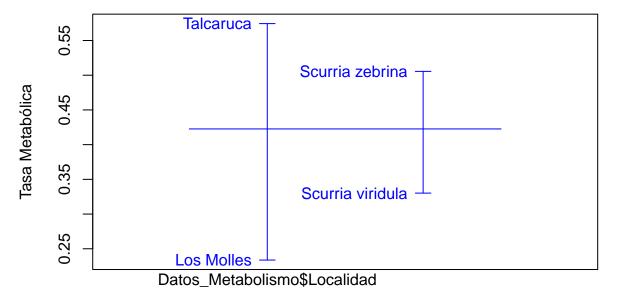


Agregar descripción de mi gráfico



#

## Mis datos muestran interacción



### **Tratamientos**

#Hay mayor variabilidad entre localidades

Table 1: Media y varianza de Tasa metabólica

Localidad	Especie	media	varianza
Los Molles	Scurria viridula	0.2209761	0.0326127
Los Molles	Scurria zebrina	0.2433236	0.0458745
Talcaruca	Scurria viridula	0.4041385	0.1422985
Talcaruca	Scurria zebrina	0.7502240	0.4163771