Assignment 1_Basic

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```
#Assignment 1: Basics
#Jeff Good
#January 16, 2020

#getwd()
#?setwd
#("/Users/jeffr/Documents/College of Charleston/Classes/Quantitative
      #Methods")
#getwd()
tgpp<-read.csv("./tgpp.csv")
#tgpp#This dataset represents the vascular plant species richness that was
#collected from the Tallgrass Prairie Preserve from 10 x 10 m quadrats.
#Species richness is simply the number of species that occur within a quadrat

#Questions:
#1.
#Names of the columns: Plot, Year, Record ID, Corner, Scale, Richness,
#Easting, Northing, Slope, pH, Yrsslb

#2.
nrow(tgpp)#count rows of selected data set
```

```
## [1] 4080
```

```
ncol(tgpp)#count columns of selected data set
```

```
## [1] 11
```

```
#Number of rows and columns:[4080,11]

#3.
sapply(tgpp,class) # How to find the object type of each column
```

```
##      plot      year record_id    corner     scale  richness   easting
## "integer" "integer" "integer" "integer" "numeric" "integer" "integer"
##  northing     slope        ph    yrsslb
## "integer" "integer" "numeric" "numeric"
```

```
# Plot: interger, Year: integer, Corner: integer, Scale: numeric, Richness
#: integer, Easting: integer, Nothing(?): integer, Slope: integer, pH: numeric,
#Yrsslb: numeric

#4.
tgpp[c(1,5,8), c(3,7,10)]#vlaues of selected rows and columns
```

```
##   record_id easting  ph
## 1       187  727000 6.9
## 5       191  727000 6.9
## 8       194  727000 6.9
```

```
#Values at rows 1,5,8 at columns 3,7,10:
  #record_id easting  ph
  #1       187  727000 6.9
  #5       191  727000 6.9
  #8       194  727000 6.9

#5.
getwd()
```

```
## [1] "C:/Users/jeffr/Documents/College of Charleston/Classes/Quantitative Methods/Basics"
```

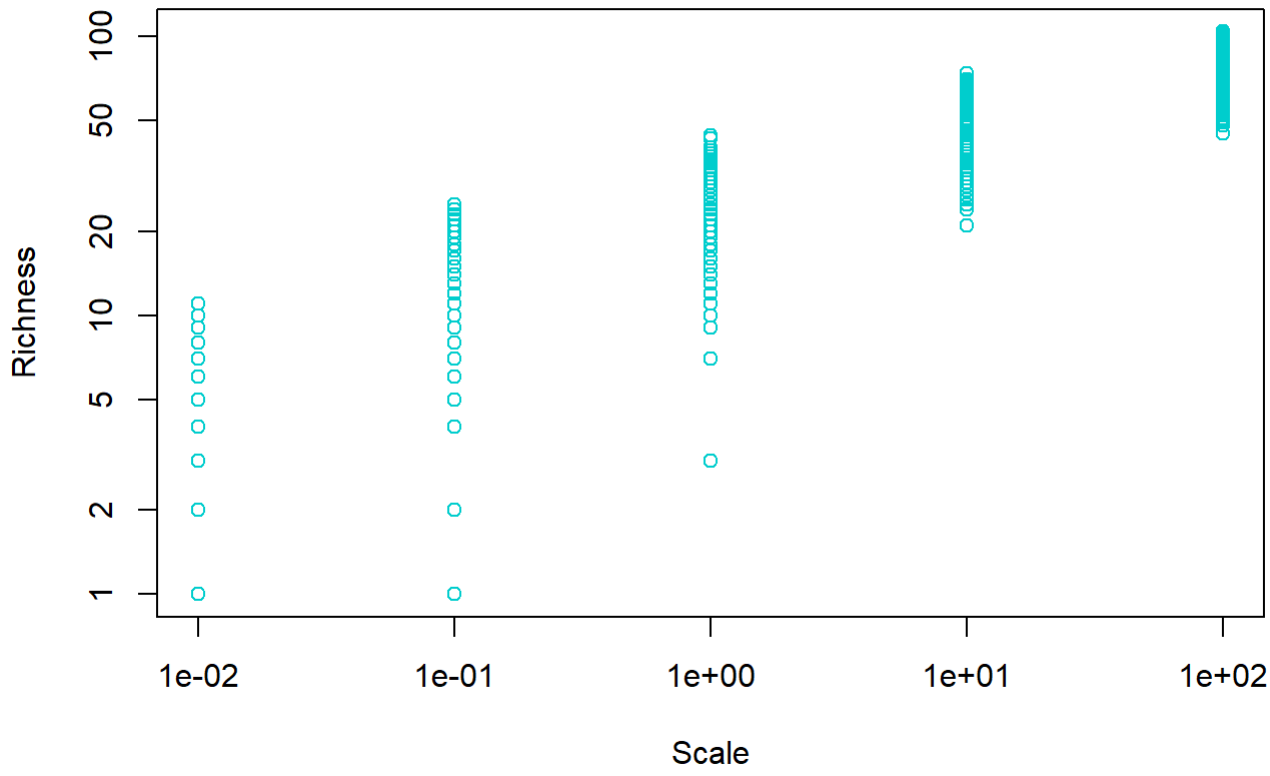
```
pdf('./Scale_fig1.pdf')
plot(tgpp$scale, tgpp$richness, xlab='Scale', ylab='Richness', col='cyan3')
dev.off()
```

```
## png
##   2
```

```
# plotted relationship between Scale and Richness and exported as PDF

#6.
plot(tgpp$scale, tgpp$richness, xlab='Scale', ylab='Richness', col='cyan3',
     log='xy')
```

```
## Warning in xy.coords(x, y, xlabel, ylabel, log): 4 y values <= 0 omitted
## from logarithmic plot
```




```
#X axis is converted to a log scale and is graphically represented


knitr::opts_chunk$set(echo = TRUE)
```