Assignment_1_Final

Ashley Jensen

1/14/2019

```
tgpp<-read.csv("https://raw.githubusercontent.com/dmcglinn/quant_methods/gh-pages/data/tgpp.csv")
```

What are the names of the columns in this dataset?

```
names(tgpp)
```

```
##  [1] "plot"      "year"      "record_id" "corner"    "scale"
##  [6] "richness"  "easting"   "northing"  "slope"     "ph"
## [11] "yrsslb"
```

How many rows and columns does the data set have?

```
dim(tgpp)
```

```
## [1] 4080   11
```

What kind of object is each data column?

```
sapply(tgpp, class)
```

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

What are the values of the datafile for rows 1, 5, and 8 at columns 3, 7 and 10?

```
tgpp[c(1,5,8), c(3,7,10)]
```

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

Create a pdf showing the relationship between "Scale" and "Richness".

```
area<-tgpp[,5]
richness<-tgpp[,6]
```

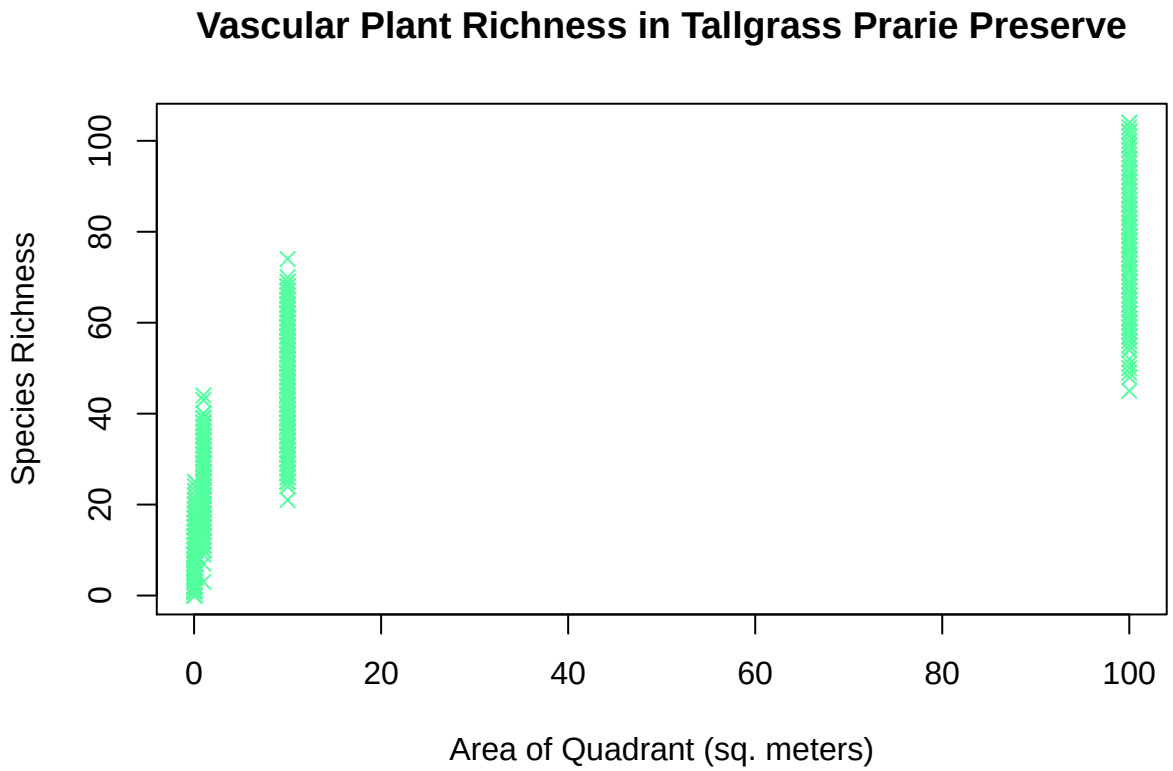
```
pdf('/home/jensenac/~quant_methods/tgpp_fig1.pdf')
plot(area, richness, xlab= 'Area of Quadrant (sq. meters)', ylab= 'Species Richness', col='seagreen1' ,
title('Vascular Plant Richness in Tallgrass Prarie Preserve')
dev.off()
```

```
## pdf
##   2
```

What happens to your plot when you set the plot argument log equal to 'xy'. plot(. . . , log='xy')

1. Graph without argument log='xy':

```
plot(area, richness, xlab= 'Area of Quadrant (sq. meters)', ylab= 'Species Richness', col='seagreen1' ,
title('Vascular Plant Richness in Tallgrass Prarie Preserve')
```



2. Graph with the argument log='xy':

```
plot(area, richness, xlab= 'Area of Quadrant (sq. meters)', ylab= 'Species Richness', col='seagreen1', l
```

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

```
title('Vascular Plant Richness in Tallgrass Prarie Preserve')
```