Assignment 1

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1. What are the names of the columns in this dataset?

colnames(tgpp)

[1] "plot" "year" "record\_id" "corner" "scale" "richness"

[7] "easting" "northing" "slope" "ph" "yrsslb"

1. How many rows and columns does this data file have?

dim(tgpp)

[1] 4080 11

11 rows, 4080 columns

1. What kind of object is each data column? Hint: checkout the function sapply().

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"

1. What are the values of the 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

1. Create a pdf of the relationship between the variables “scale” and “richness”. Scale is the area in square meters of the quadrat in which richness was recorded. Be sure to label your axes clearly, and choose a color you find pleasing for the points.

plot(1:length(tgpp$scale), tgpp$richness, xlab = "Scale", ylab = "Richness", col="darkorange2")

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

The plot is log transformed, and the data points are more linear.