Keegan Moynahan

Data Exploration Assignment

1)

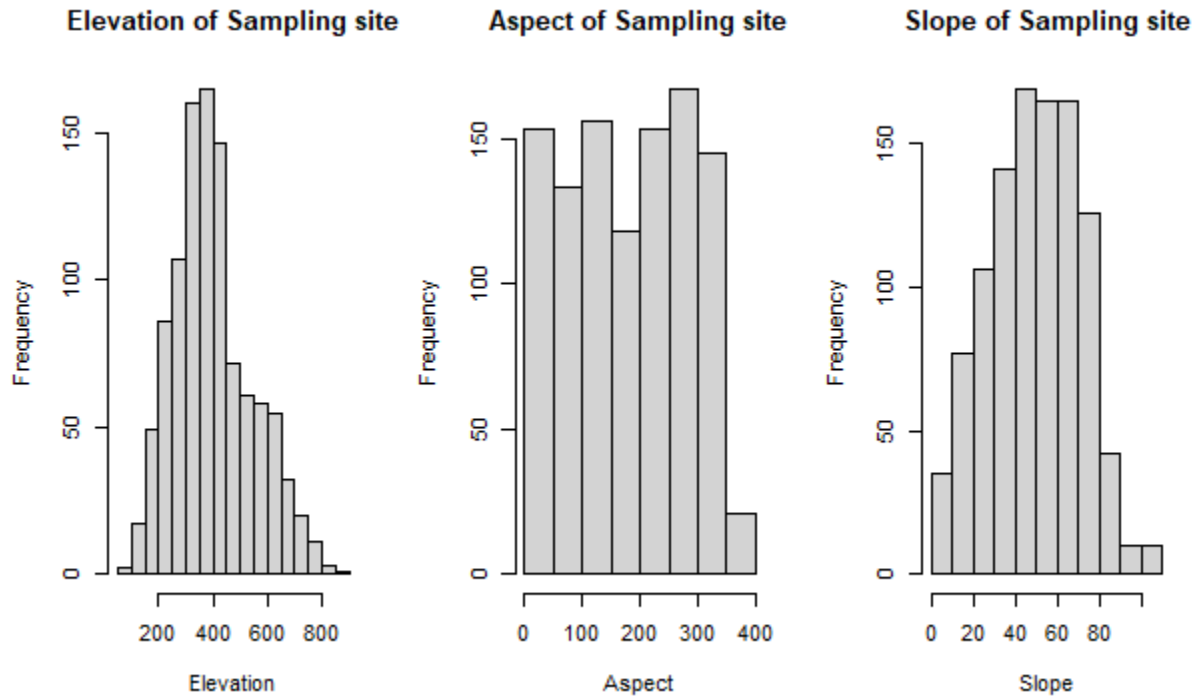### Elevation of Sampling site   Aspect of Sampling site   Slope of Sampling site

2) I would say this histogram is closest to a right skewed histogram, this means that most of the data is on the left side of the histogram. When viewing the elevation histogram, I can see that most of the sampling sites were done in elevation ranges of roughly 200 meters – 500 meters. There seems to be more data from low to mid elevation of sites, but there is also a decent amount of data from higher elevations. When viewing this histogram, I think it is safe to say the data was mostly collected in low to mid elevation as well (skewed to the lower elevations). One can see in the graph that as the elevation increases the frequency of the sampling sites decrease.

3) Slope is measured in percentage of slope.

4) Out of the three histograms made I would say this histogram is the closest to a normal distribution, data represents a bell shape. Most of the sampling sites where between 40% and 70% slope. This means these a decently steep slope. This histogram shows that most of the data was collect in areas that had some slope to them. There was also more data collected on flat ground than very steep areas. In the end I would say if you were to break the data in half (lowest slopes, highest slopes) that the data had an even mixture of both.

5) Aspect can be described as the positioning of an object or something in a specific direction. Aspect in this case were measured in degrees (0 being North, 90 being East, 180 being South, and 270 being West-all other values fall in between).

6) This graph has many high points and then dips down repeatedly, this graph represents a randomly shaped histogram. This is because the data was collected in sites that had different aspects from each another. I would also say that the data is distributed throughout most of the

aspect values (except for the end of the histogram). When looking at the histogram I would say there is an even number of sites that face the North, East, South and to the Southwest. The direction that most of the sites don't face would be the Northwest (use this scale to interpret the histogram, 0 being North, 90 being East, 180 being South, and 270 being West-all other values fall in between). This means that the sites are mostly evenly distributed between North, East, South, and Southwest.

7)
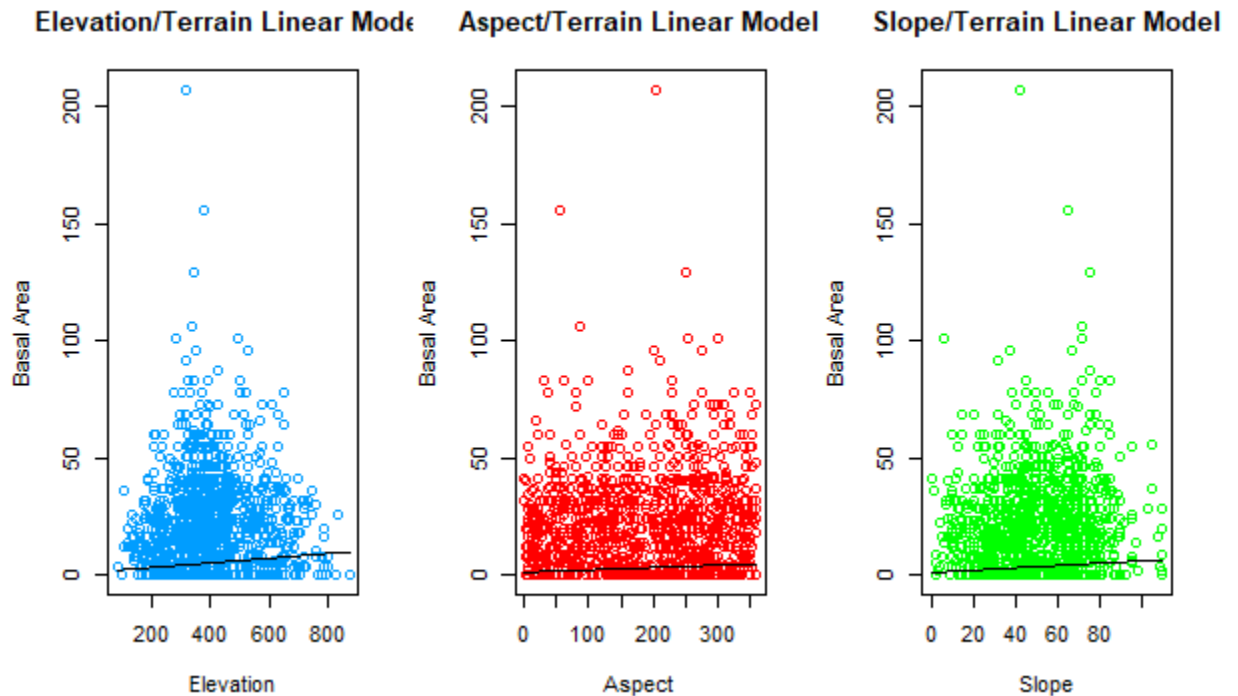
8) For all three plots (elevation, slope, and aspect) the relationships arent linear. There also seems to be little association between Basal area and these terrian stats. Elevation seems to have the greatest association with there being smaller basal area at lower elevations. The other two plots (aspect and slope) seem to be scattered and have no relationship. My linear model is a good fit for the plots because there is no relationship between the data.