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ECO 602

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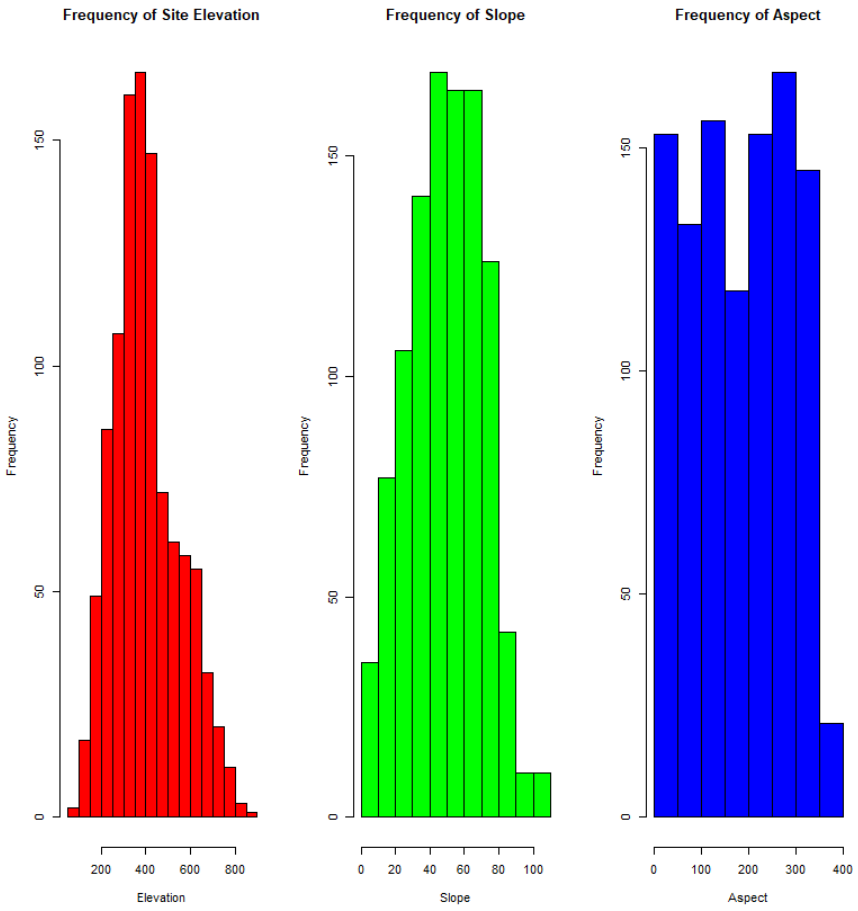
Data Exploration and Deterministic Functions

Q1



Q2

According to the histogram for Frequency of Site Elevation, there seems to be more sampling sites from lower elevations. As seen in the graph, the frequency is highest from elevations of 85 to ~ 425 meters. This spread does not look like an even distribution. An even distribution of site elevations would have a peak closer to 500 meters.

Q3

According to the metadata file, slope is measured as a percentage % from 0 to 110.

Q4

The histogram for Frequency of Slope shows that a majority of the sites have a slope from 0 to 60%. To interpret this, you can imagine a right triangle where the horizontal line is equal to 10m. According to the data, the vertical line of the triangle would likely not be larger than 6m. This results in most of the slopes ranging from flat to shallow.

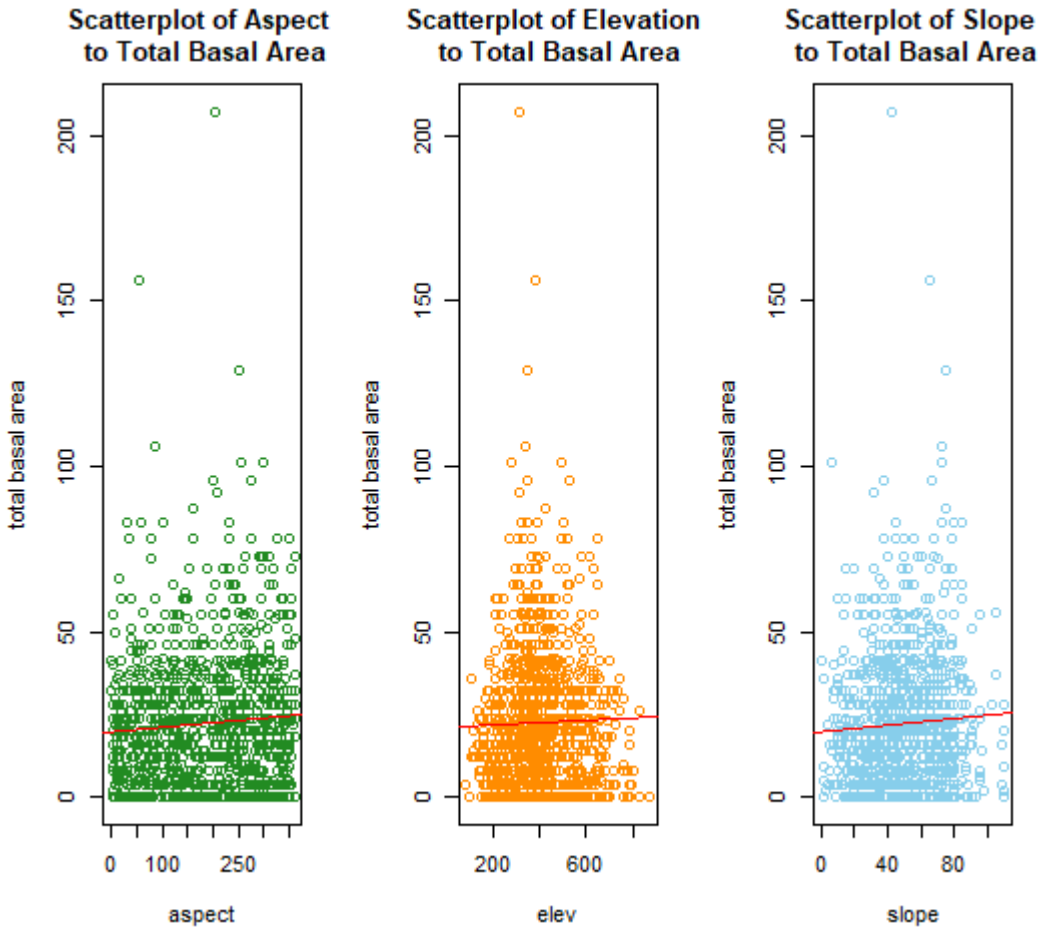
Q5

In geography, aspect is defined as the compass direction that a hillside or slope faces, measured in degrees from north.

Q6

By looking at the histogram from Frequency of Aspect, the data shows that there is an even distribution of north-facing and southern-facing slopes.

Q7



Q8

For each of these scatterplots, there does not seem to be a noticeable linear association between any of the terrain variables and total basal area. There are many plot points found across all measures on the x axis and the trend lines are relatively constant with a slope that appears to be close to zero. Because of these factors, I do not believe that a linear model is good fit for the data; The total basal area does not clearly increase or decrease as the terrain variables increase.