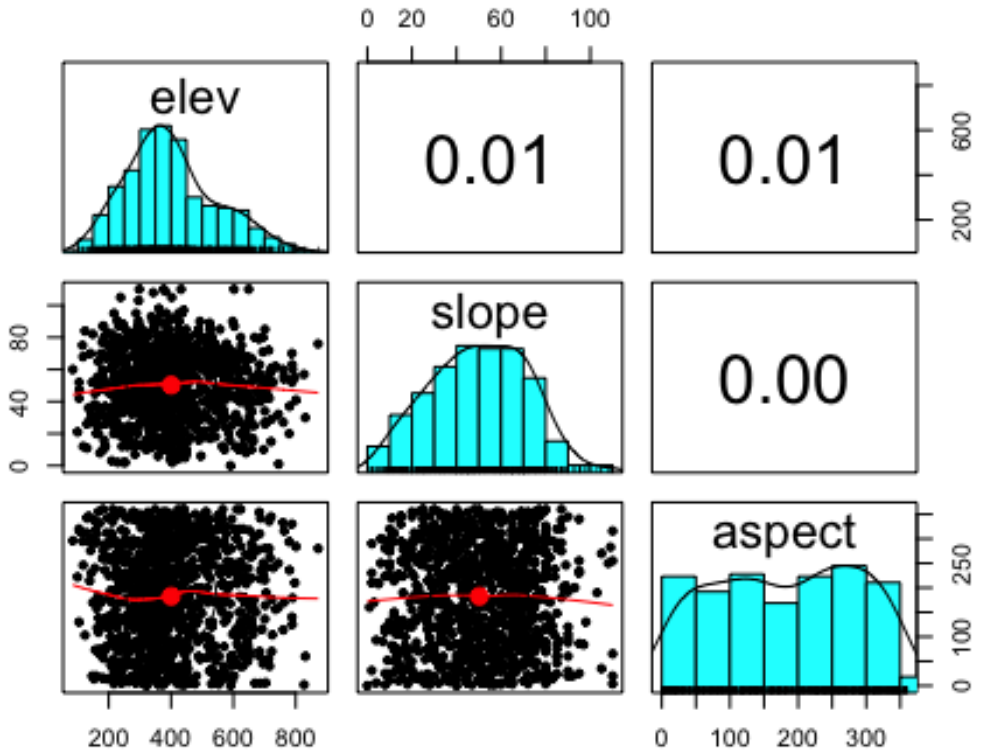
Lab 3
Feipeng Huang

###Q1
#Basal area is the cross-sectional areas of tree stems. We measure the circumference at breast height (1.3 meters or 4.5 feet from the ground), estimate the diameter, and calculate the area.
#basal area of a forest = total basal area of all trees / area of a forest

###Q2



```
###Q3
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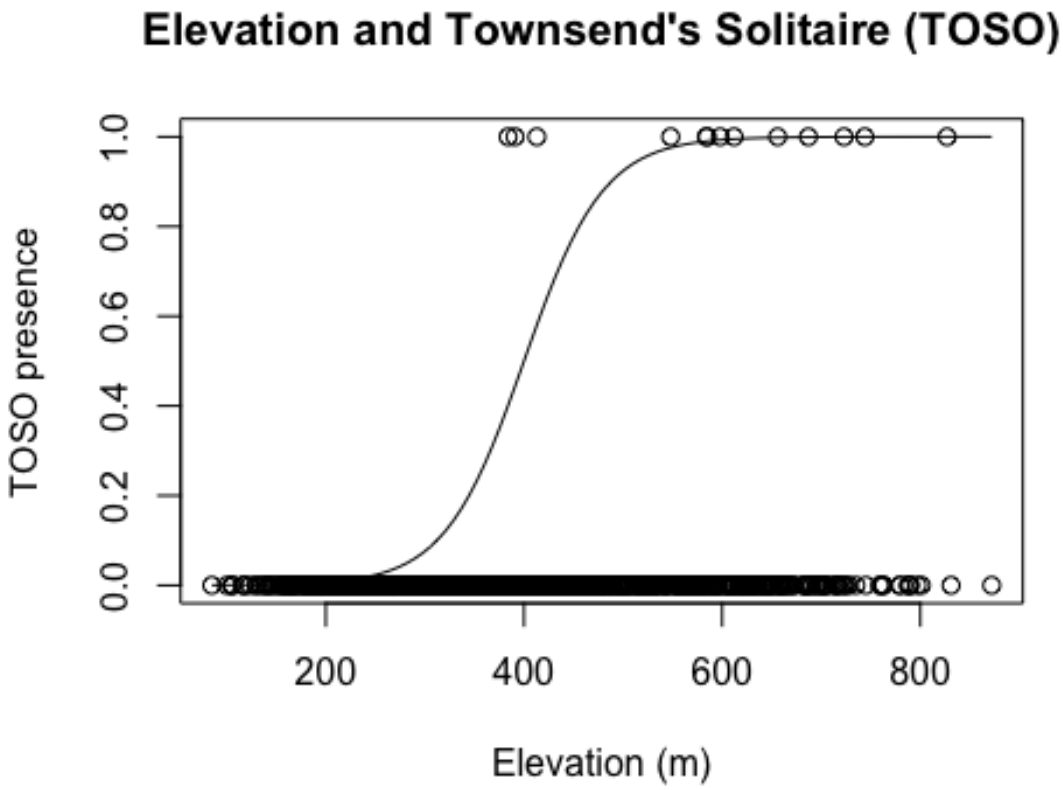


```
###Q4
#Townsend's Solitaire preferred mid to high elevations and were not found at
elevations below 300 meters. The logistic model is not a good fit because
TOSO was absent from many mid to high elevations. More observations of TOSO
would better reflect the habitat preference.
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###Q5
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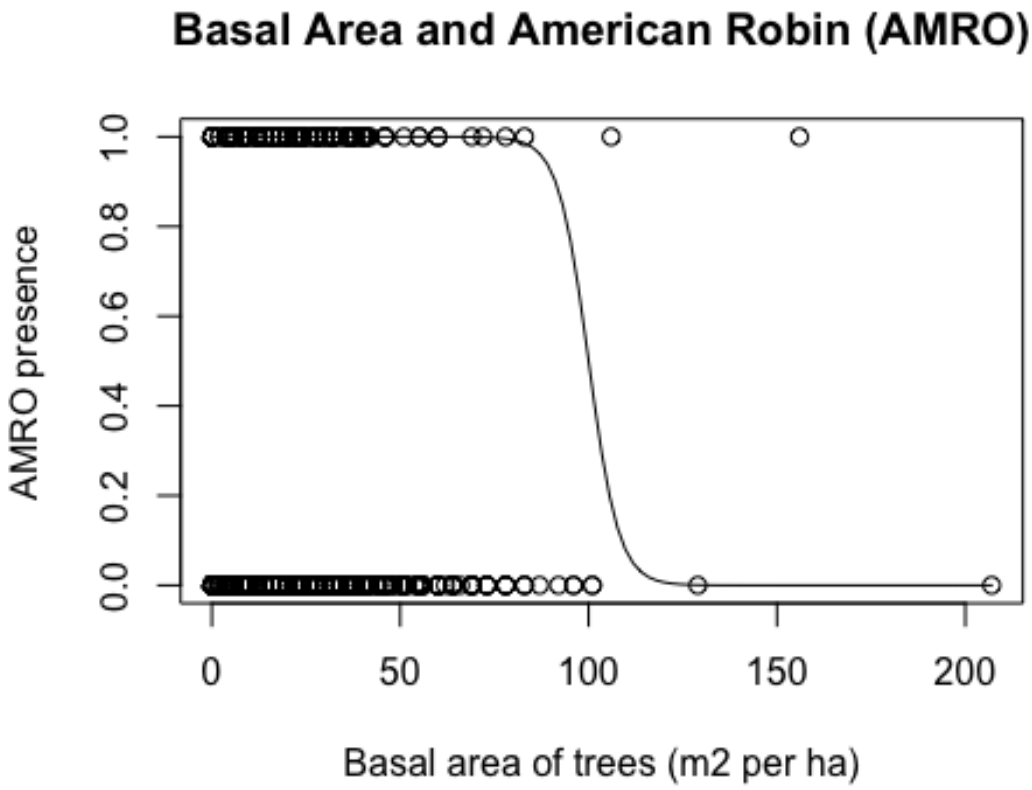


```
###Q6
#American Robin preferred low tree cover (basal area < 50 m2 per ha). Howeve
r, there are many low basal area sites where robins were absent. So a logisti
c model is not a good fit. High basal area sites are not representative in th
is data set.

###Q7
#181 Gray Jays were observed in all of the sampling sites.

###Q8
GRJA = dat_all$GRJA
sum(GRJA)

###Q9
#There are 110 sampling sites in which Gray Jays were observed.

###Q10
GRJA > 0

GRJA_present_absent = as.numeric(GRJA > 0)
sum(GRJA_present_absent)
```