Are rodent weights correlating with precipitation?

Group: Yige Sun, Amy Solman, PokMan Ho

Aims and Hypotheses

To see if there is a significant correlation between weight of rodents and precipitation.

Statistical Methods

Firstly, we described the raw data and log data using qqplot and histograms. We found that both were not normally distributed, therefore we used the non-parametric test Spearmans rank to explore the correlation between the datasets.

Pretty Graph(s)

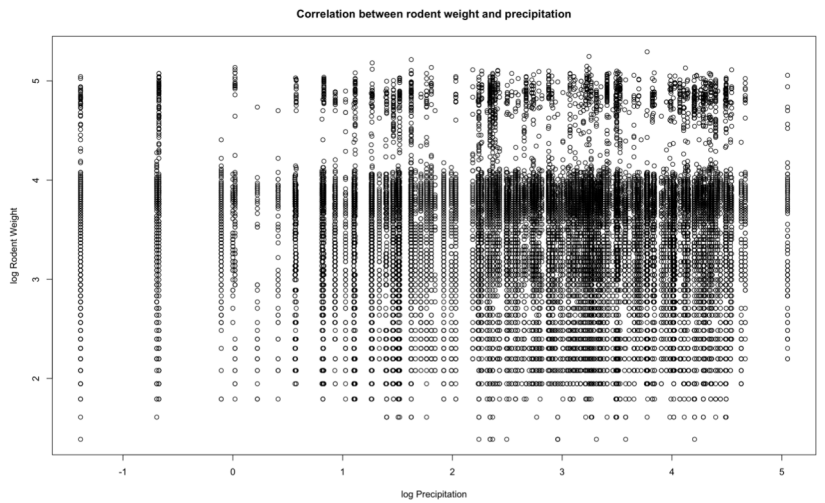

Figure-Legend

Results Write-Up

No evidence for correlation between the data sets. (S= 3.51e+12, rho=0.005, P-value= 0.39)

Conclusions

Rodent weight is not correlated with precipitation.

Are rodent weights different between sexes?

Group: Yige Sun, Amy Solman, PokMan Ho

Aims and Hypotheses

To see if there is a significant differences between weight of male and female rodents.

Statistical Methods

Firstly, we described the raw data(weight) and log data using qqplot and histograms. We found that both were not normally distributed, therefore we used the non-parametric Kruskal-Wallis test to explore the differences between the sexes.

Pretty Graph(s)

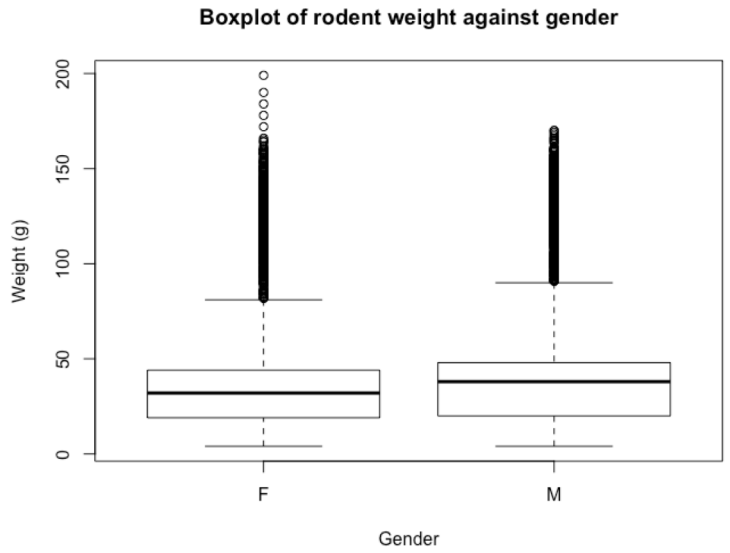

Figure-Legend

Results Write-Up

The weight is significantly different between the sexes (χ^2=158.28, df=2, p-value << 0.001).

Male rodents are heavier than females by 6 grams in terms of median.(male=38g, female=32g)

Conclusions

The weight of rodents are significantly different between males and female. Male rodents are heavier than female rodents.