DSP 539: Assignment 3

Step-1: Data loading

```
surveys <- read_csv("data/portal_data_joined.csv")
```

Step-2: Data Cleaning

New Dataset is created by removing missing data (weight, hindfoot_length, sex)

```
surveys_complete <- surveys %>%
  filter(!is.na(weight),
         !is.na(hindfoot_length),
         !is.na(sex))
```
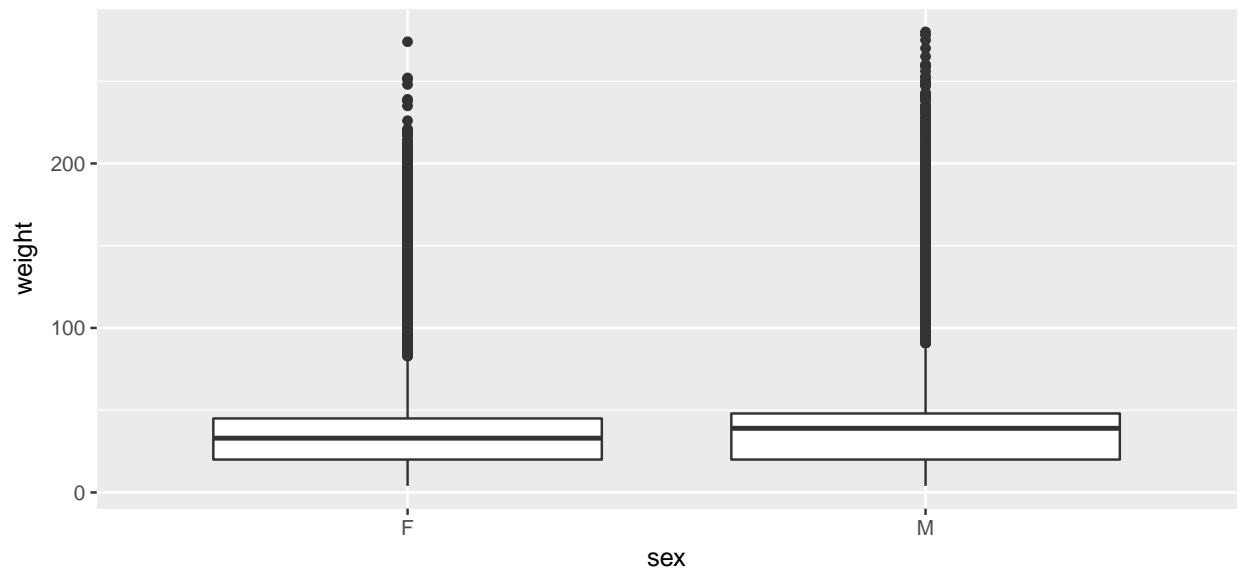
Step-3: Data Transfromation

Rare species are omitted from final data set. Hence species frequency is counted first in descending order, rare species are then filtered out (less than 200) and finally most observed species are extracted.
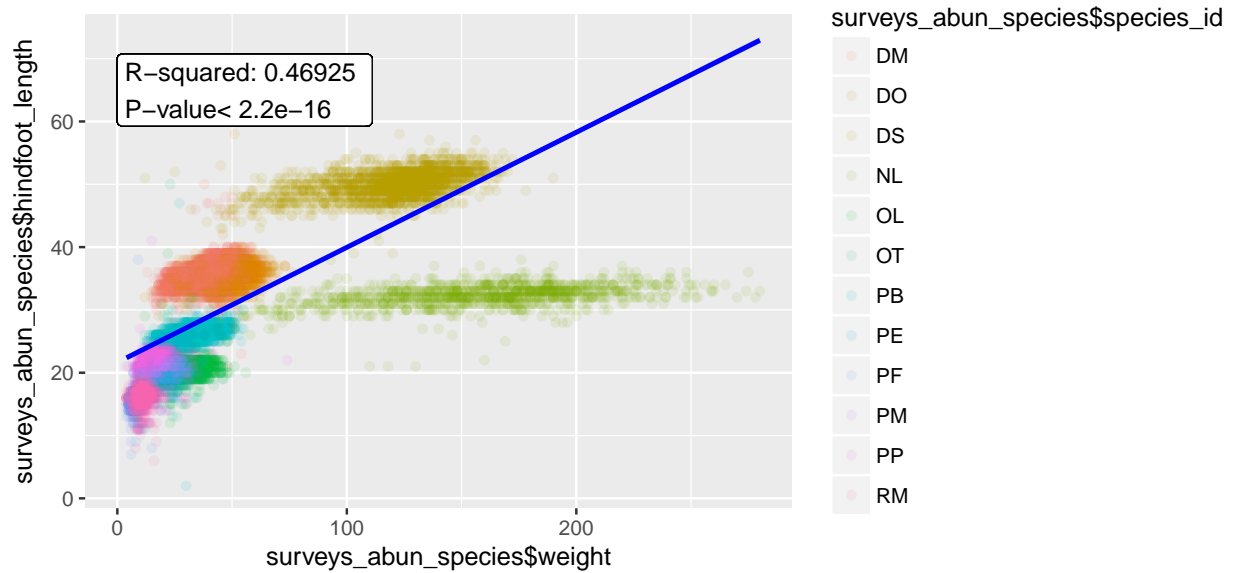
Step-4: Plots and reports
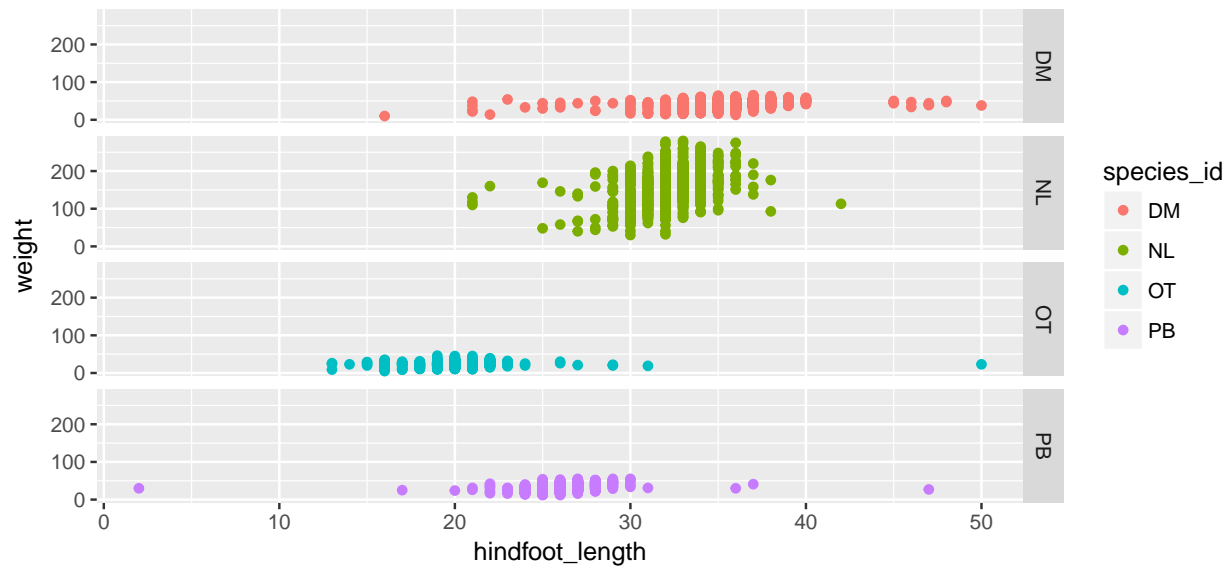
a. Histogram of hindfoot lengths
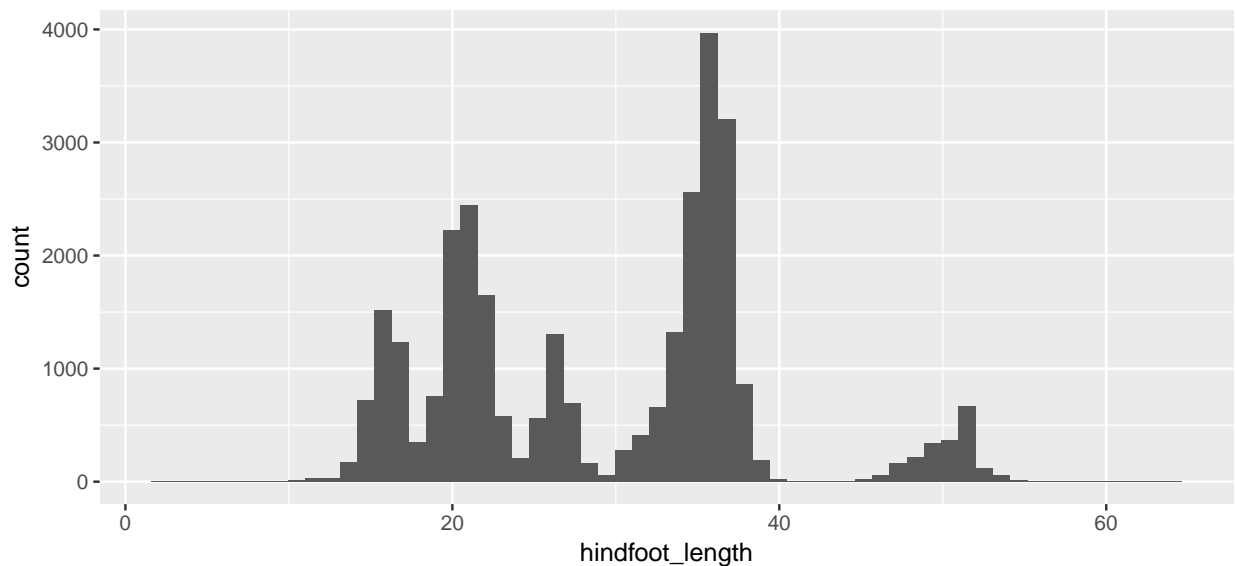
b. Boxplots: weight by sex

c. Scatterplots: hindfoot length vs weight

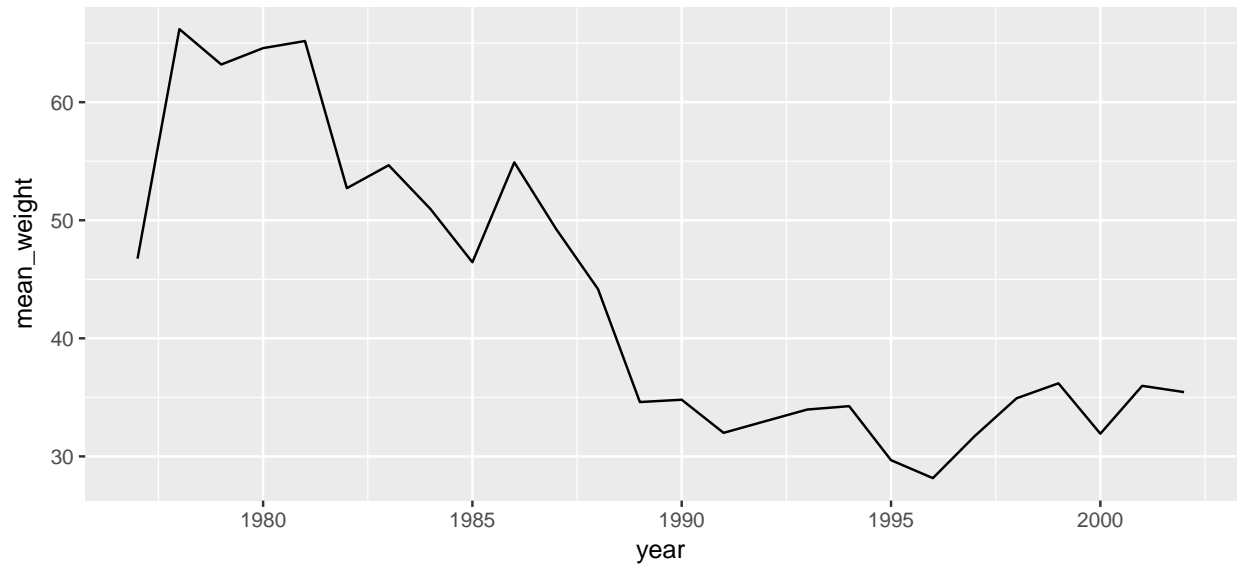**d. Scatterplots: hindfoot length vs weight for 4 species**

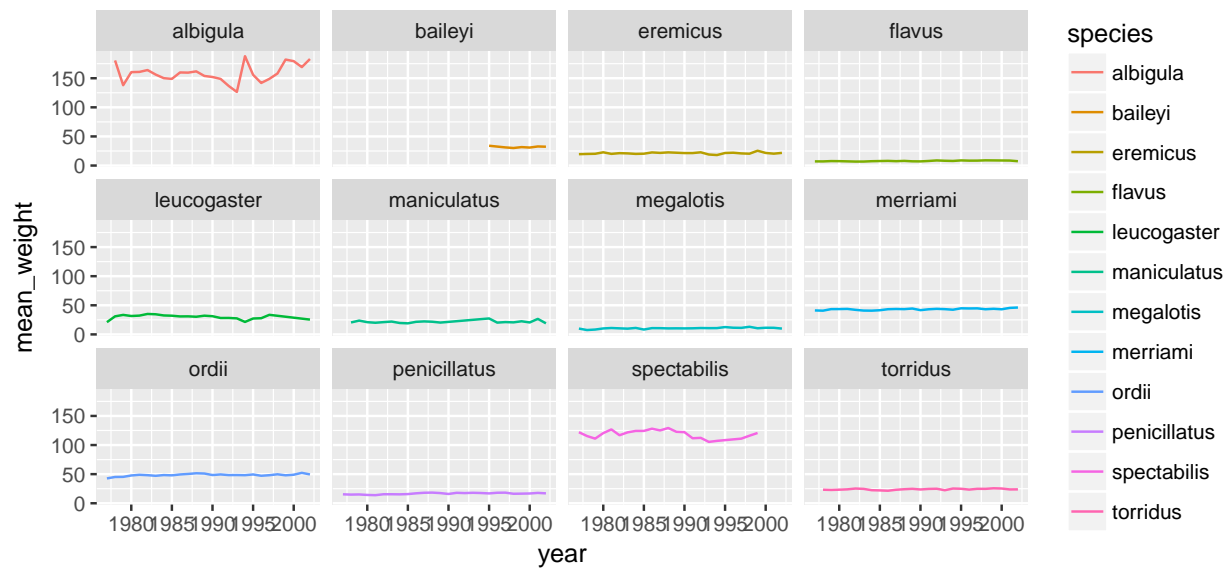**e. Plot: Yearly counts of 'Rodent Exclosure'**

###f. Plot: Average weight (all animals)
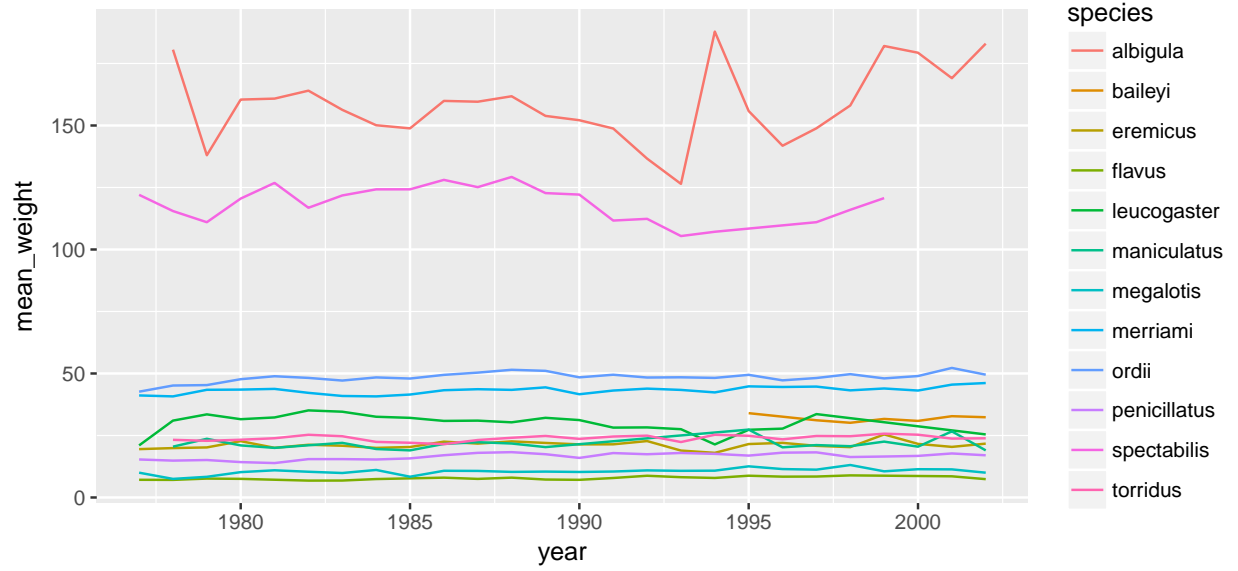
It shows decreasing trend
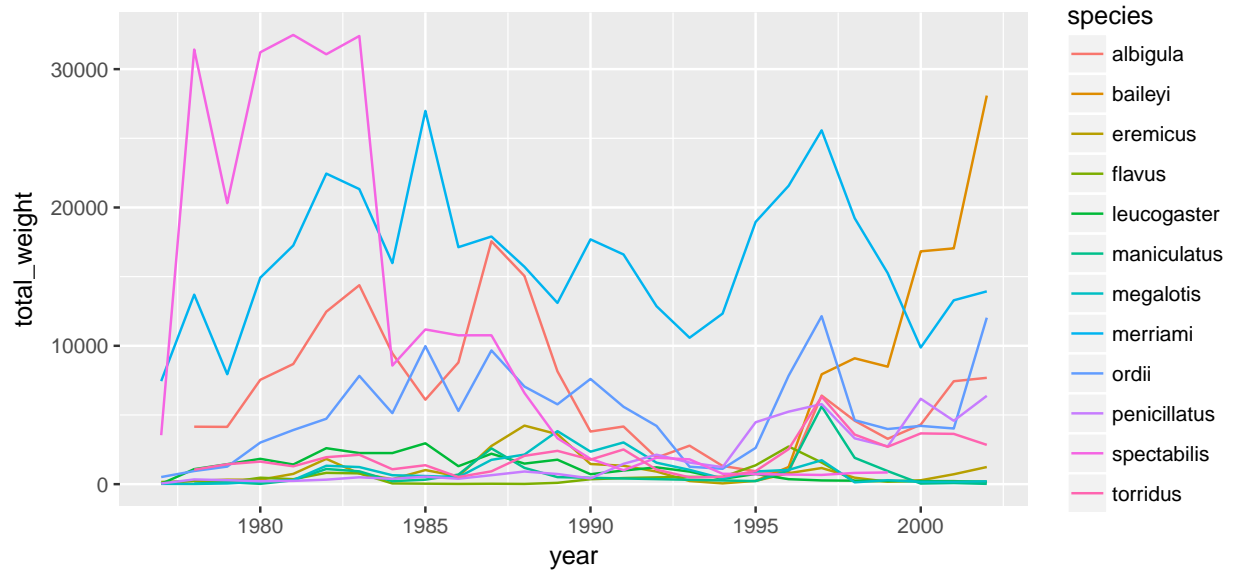
g. Plot: Yearly average weight (each species)

It remains constant
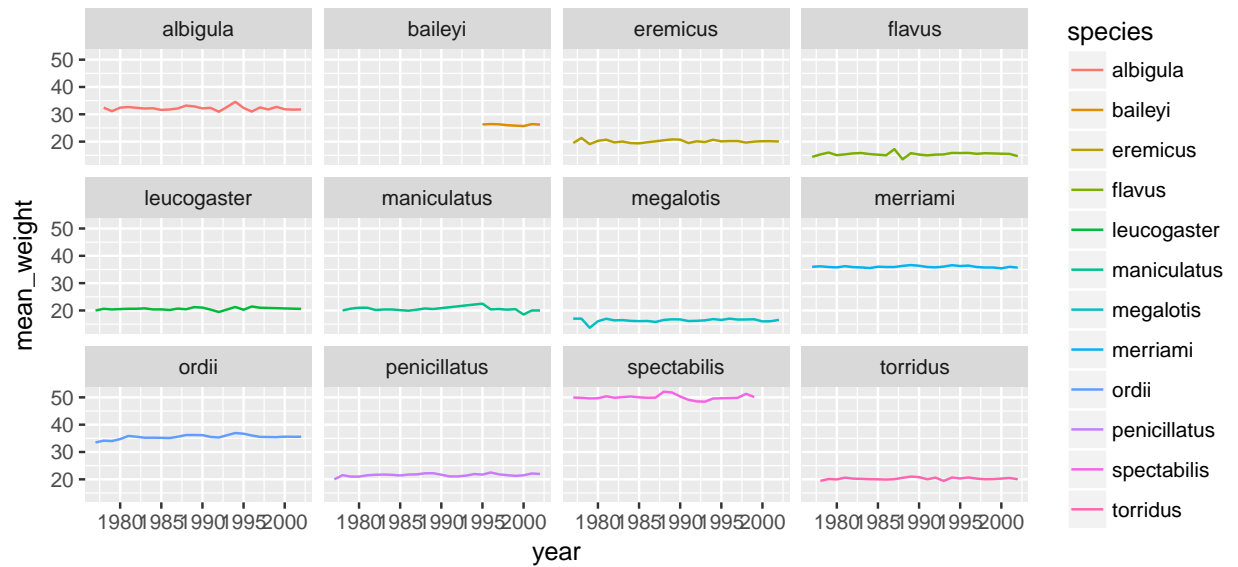
h. Plot: Yearly average weight

i. Yealy total weight by species

j. hindfoot length(All species) trend

k. hindfoot length(Per species) trend

k. hindfoot length vs weight (species id=DM)