Biodiversity Project

Submitted by-Ramandeep Kaur

Data in species_info.csv

The data includes columns
-category,scientific_name,common_names,conservation_status.

The values in category columns are

Mammal,Reptile,Amphibian,Fish,Vascular Plant,Non Vascular plant

The values in coservation_status are

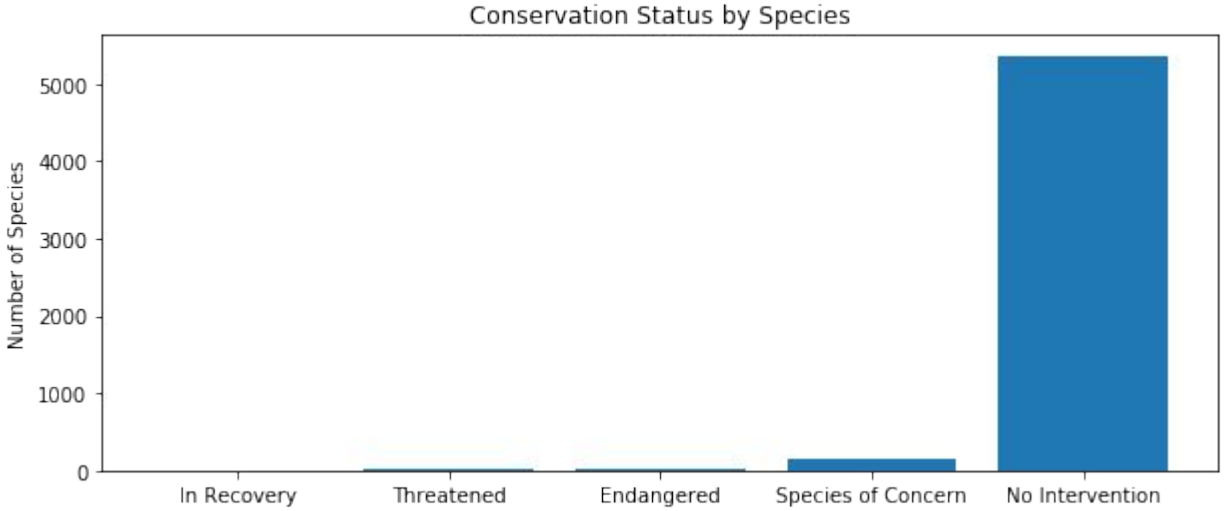
Endangered,In Recovery,Species of concern,Threatened

There were 15 Endangered, 4 In Recovery,151 Species of concern,10 Threatened

,5363 No Intervention animals and plants.

Barchart for depicting the conservation status of species

This shows a lot of species compared to others are not on the verge of danger.



Chi Square Test

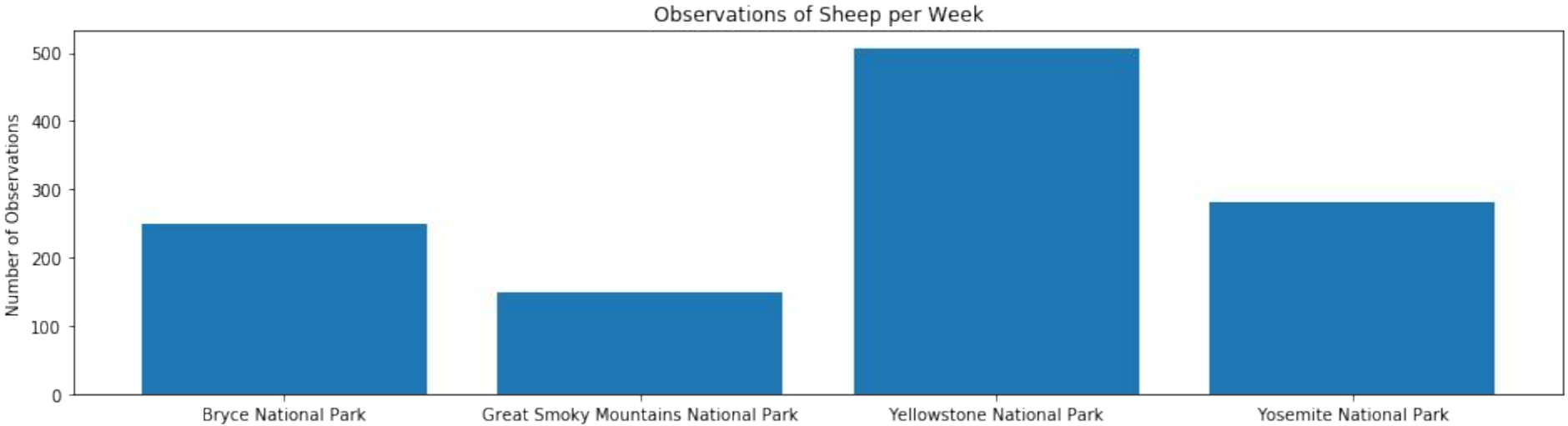
Based on the chi square test and the data from category_pivot the difference between the data of mammals and bird is not significant.Hence our null hypothesis(the difference is due to chance) is accepted.

But the difference between the mammals and reptile is significant .Hence null hypothesis is rejected and mammals are more likely to be endangered.

Recommendation for conversationists

According to the significance calculations Mammals and birds are more likely to be endangered .Hence this result should be shared among conservationists who are concerned about endangered species.

Bar chart for number of sheeps at differnet national parks



Foot and mouth disease sample size calculation

As 15% sheep at Bryce National Park had foot and mouth disease.

So baseline value is 15%

And minimum detectable effect is a percent of the baseline so to observe 5% change with confidence 90%,our minimum detctable effect would be33.33

Sample size would be 870.

According to this it would take 3.4week at Bryce National Park ,

1.7weeks at yellow Stone National Park to observe enough sheeps for foot and mouth disease.