Biodiversity for the National Parks

Species's nformation in National Parks

- The dataframe, species_info.csv, is composed of 5823 rows
- Among the 5541 species, we totalise 7 categories:
  - Mammal
  - Bird
  - Reptile
  - Amphibian
  - Fish
  - Vascular Plant
  - Non Vascular Plant
- It composes by 4 fields: Category, Scientific Name, Common Name & Conservation Status
- Scientists defined 5 status :
  - Endanger,
  - In Recovery
  - No Intervention
  - Species of Concern
  - Threatened

Are certain types of species more likely to be endangered?

- Which type of data?

  The research is about species, so data categorical

- How many pieces of data are you comparing?

  7species

In order to know if there are a signifant difference among them, we process a Chi-Squared Test:

Between the Mammal and Bird, the result is not significant because *the p-value equals 0.68*

Between the Mammal and Reptile, the result is significant because *the p-value equals 0.03*

Recommandation

According to the data, some annimals are more in danger than others, like Mammal.

In a further research, it would be necessary to classify which animals are more in danger. With this ranking, rangers will be able to optimize their time and their tasks in the protection of different species

Finally, with more data , we could determine various reasons of their critical condition.

Reduction of Foot & Mouth diseases

- During one week scientists anlysed the sheep's movement in differents parks.The purpose of their research is to reduce, at least, by 5% the foot and mouth diseases of sheep.
- Our role is to estimate the size of the sample:

  Baseline: 15%

  Minimun detectable effect: 33,33%

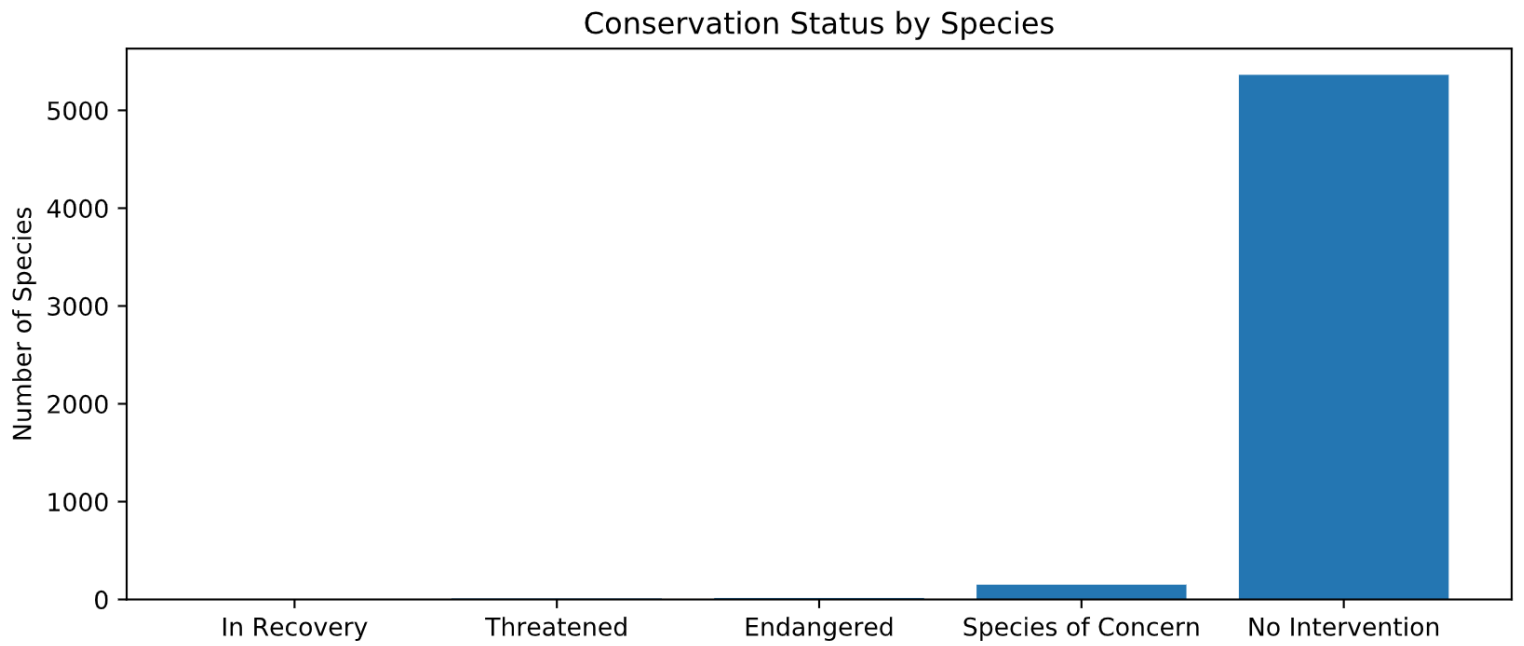
- The sample should contain 870 sheeps

In order to observe enough species, scientists should take:

Yellow Stone, with 507sheeps, will take 1week of observation

Bryce, with 250sheeps, will take 3weeks of observation

Conservation Status by Species



Observations of Sheep per Week