



BIODIVERSITY CAPSTONE PROJECT

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Describing the Data

- Species_info.csv
- Data file was based on data from the National Parks Service
- Data included the scientific name of each species, the names they were most commonly known as, and their conservation status (Endangered, In Recovery, Species of Concern and Threatened), and what category they fall under (Mammal, Reptile, Bird, etc.) .
- There are 7 different species types listed, and out of the 7, two of them were plants. There are 5,541 species categorized across those 7 categories
- Amongst the conservation statuses, there are 15 scientific names that are endangered, 4 in recovery, 151 species of concern, and 10 threatened.
- The thing most surprising to me was how many animals are species of concern

Significance Calculations

- Looking at the pivoted endangered species data, it appears that Mammals have a higher likelihood of being endangered than birds.
- In my significance testing for mammals vs. birds, the pval was calculated to be greater than 0.05, so there was no significant difference.
- When comparing Mammal vs. reptiles, mammals still had a higher likelihood of being endangered as well.
- In my significance testing for mammals vs. reptiles, the pval was calculated to be less than 0.05, so there is a significant difference.
- In conclusion, it is proven that certain species are more likely to be endangered than other

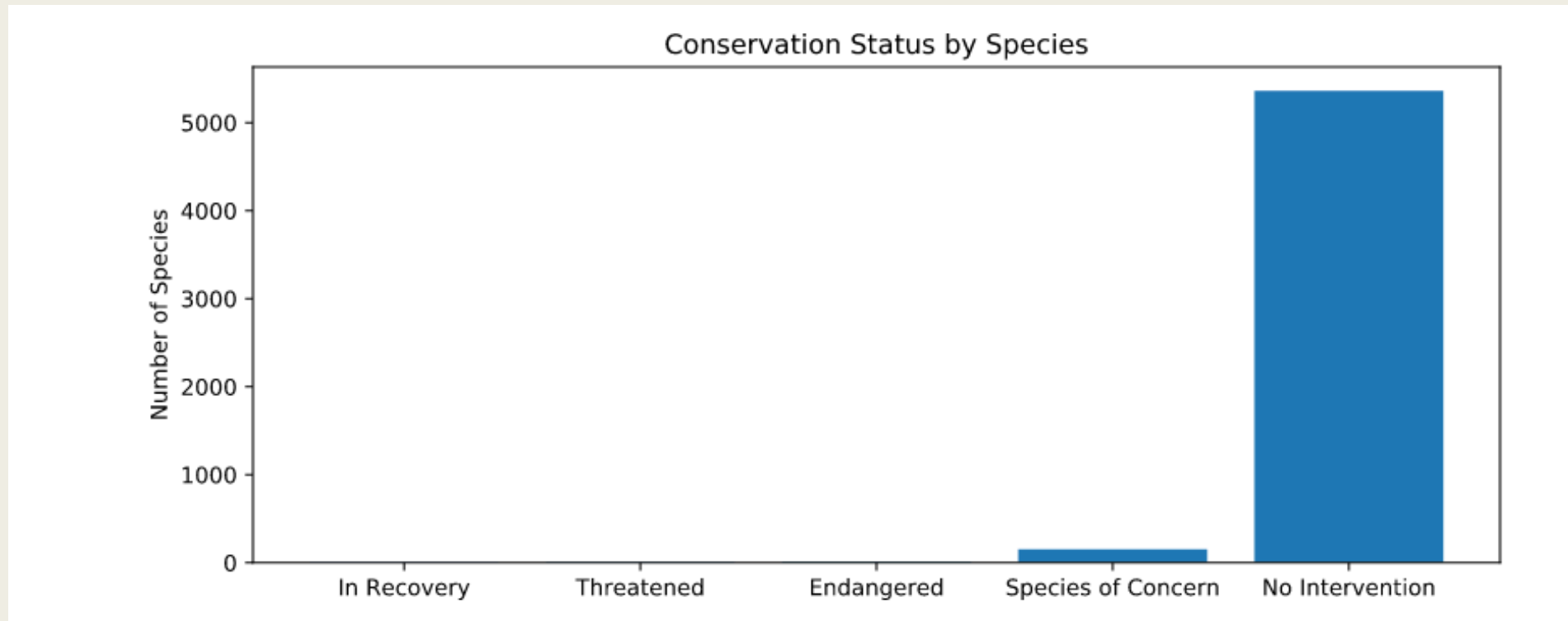
Reccomendation

- Based on my findings that certain species are more likely to be endangered than others, I'd say that there aren't any major causes for concern as the chances of a certain species being more likely endangered than others aren't outrageously high.
- To combat endangerment though, they should focus on those species that are more likely to be endangered and figure out how to save them.

Foot and Mouth Disease

- Scientists have recorded that 15% of sheep at Bryce National Park have foot and mouth disease
- If scientists wanted to be sure that less than a 5% drop in cases of foot and mouth disease in Yellowstone sheep was significant, they'd have to observe at least 510 sheep.
- Observing this many sheep would take around 1 week of observation in Yellowstone, and around two weeks in Bryce National Park

Graphs



Graphs

