

Biodiversity Analysis - Capstone Project

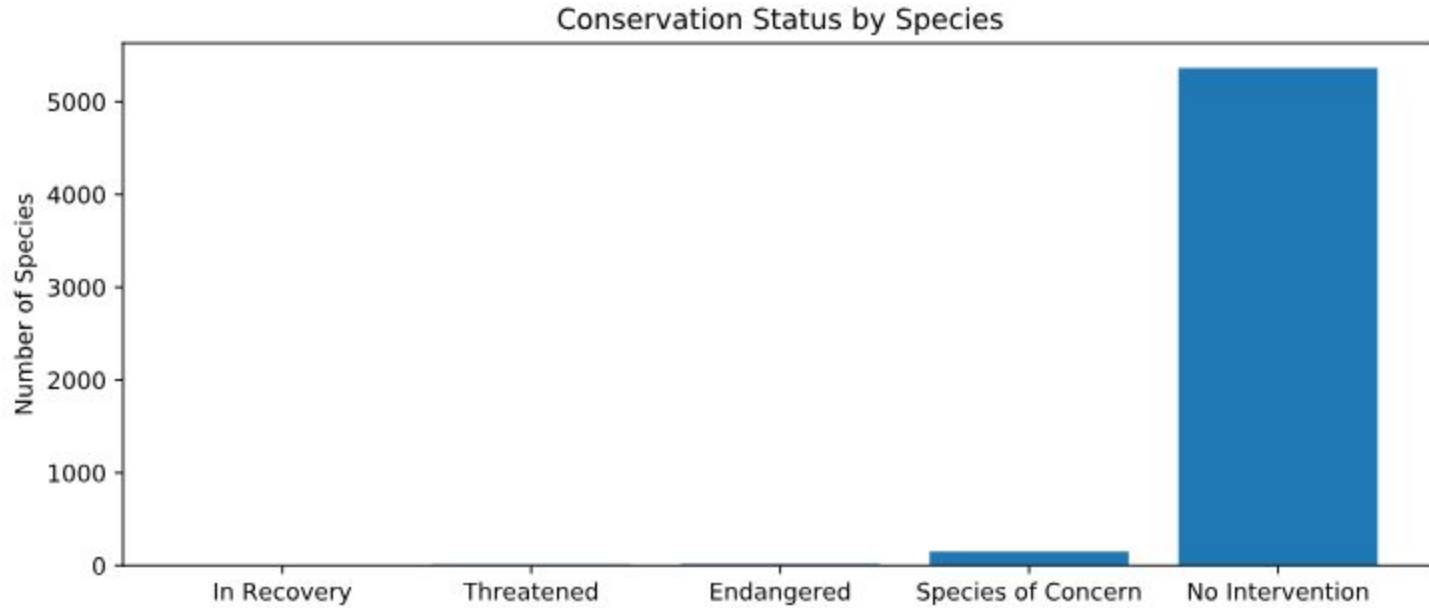
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Conservation status of each Species

1. Total count of Species 5541
2. Conservation status displayed as NaN, Species of Concern, Endangered, Threatened and In Recovery.
3. Conservation status (count) of Endangered species is 15
4. Species with Conservation status as NaN (No Intervention) - 5633



Conservation Status plotting per Species



Investigate - Endangered Species

Percentage of Species as Protected

1. Amphibian - 8.8%
2. Bird - 1.5%
3. Fish - 8%
4. Mammal - 17%
5. Nonvascular plant - 1.5%
6. Reptile - 6.4%
7. Vascular plant - 1.0%



Chi Square Test for significance

1. Contingency table for Reptile/ Bird yields “pval” or probability value as 0.687
2. Contingency table for Reptile/ Mammal yields “pval” or probability value as 0.038
3. Mammals are more likely to be endangered looking at how Birds protected (75) more than Mammals (30)



Foot & Mouth disease ratio at National Parks

Number of weeks spent to observe Sheep at Yellowstone National Park - 1.71
(close to 2 weeks)

Number of weeks spent to observe Sheep at Bryce National Park - 3.48

Number of weeks spent to observe Sheep at Great Smoky Mountains - 5.83 (close to 6)

Lesser the sample size (observations); higher is the week count it takes for Scientists to spend at a Park to observe enough Sheep



Merge Observations at National Park with Sheep

Great Smoky Mountain National Park with the lowest count- 149

Yellowstone National Park with the highest count - 507



Sheep Sightings at various National Parks



Sheep Species Investigation

Ovis canadensis sierrae species is “Endangered” meaning they are at higher risk of extinction of all three Sheep species

Ovis canadensis is next as it is “Species of Concern” if it is not protected then it can fall in the above category of “Endangered” soon

Yellowstone National Park and Yosemite National Park are the ones that house Endangered Sheep species

