

CAPSTONE PROJECT

BIODIVERSITY FOR THE NATIONAL PARKS

PFontecilla

Data in Species_info

- Data in species_info includes the below data for each species:
 - Category – Endangered, In Recovery, Species of Concern, Threatened, or blank
 - Scientific Name
 - Common Names

Endangered Status Calculations I

- Chi-Squared Test for Significance
 - Null hypothesis stated that mammals are more likely to be endangered than birds due to chance.
 - The test included 176 Mammals and 388 Birds

Endangered Status Calculations II

- Test for significance indicated the below:
 - Variation in endangered birds and mammals is a result of chance. P-value (~ 0.688)
 - Variation in endangered reptiles and mammals is significant.

Recommendation: Protected Species

- As indicated by the chi-squared test for significance, some species are more likely to be endangered than others.
- It is recommended that protection efforts account for these differences, and that species are protected accordingly.

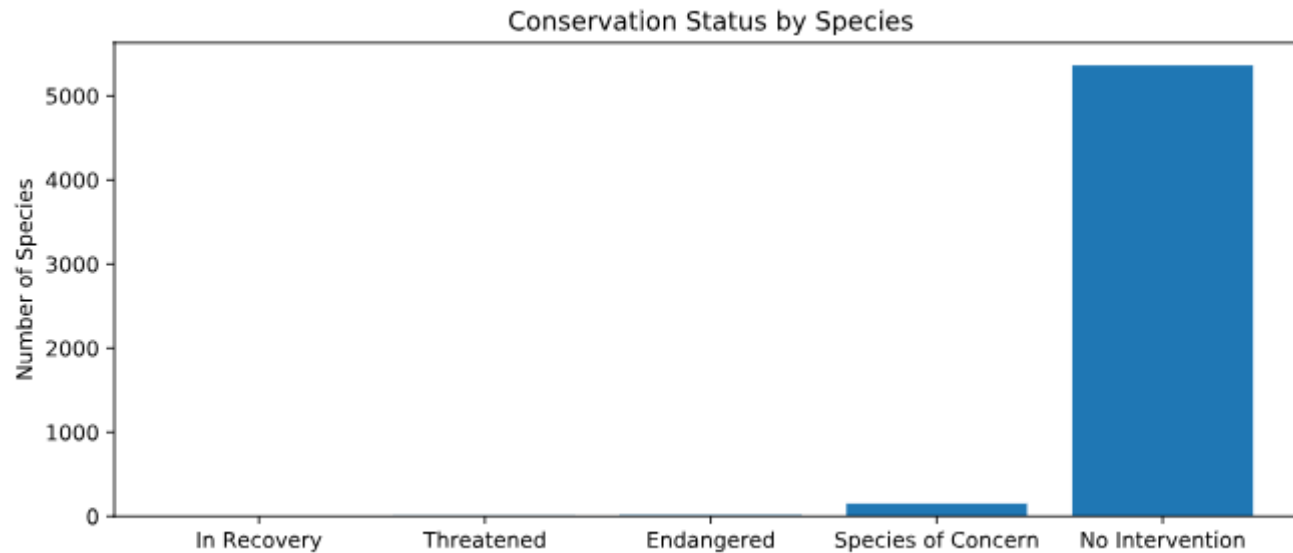
Foot & Mouth Disease Study

- To ensure the goal of at least 5% drop in sheep with foot and mouth disease at least 510 sheep would need to be observed.
- Amount of time to observe 510 sheep:
 - Yellowstone National Park – 1 week
 - Bryce National Park – 2 weeks

Recommendation: Foot & Mouth Disease

- To reduce and confirm efforts of foot and mouth disease, investigators should:
 - Observe at least 510 sheep.
 - The larger the sample size, the more confidently they can assure the reduction.

Appendix A: Graphs



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