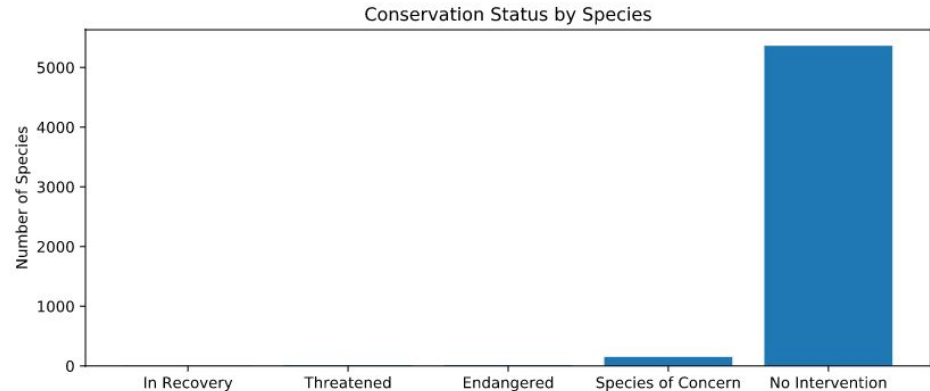


National Parks Service Biodiversity Analysis

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Data Analysis of Species Info

- Analysis of the data in species_info.csv showed that 5363 out of 5541 species documented were listed as requiring no intervention
- 151 were listed as a Species of Concern
- 15 are Endangered
- 10 threatened
- 4 are In Recovery





Investigating Endangered Species

- The data showed us that while Vascular Plants make up the largest portion of the data set, they are the most likely to be not protected
- Mammals have the largest percentage of protected species overall, with Birds being a close second

category	not_protected	protected	percent_protected
Amphibian	72	7	0.088608
Bird	413	75	0.153689
Fish	115	11	0.087302
Mammal	146	30	0.170455
Nonvasc.Plant	328	5	0.015015
Reptile	73	5	0.064103
Vascular Plant	4216	46	0.010793



Conservation Recommendation

- Mammals are more likely to be endangered than birds - significance tests showed that this difference is not significant and is a result of chance
- The difference between Mammals and Reptiles, however, is significant and not a result of chance.

This answers the initial question, that yes, some species are more likely to be endangered than others. We are able to see that a significant difference between mammal and reptile endangerment exists, and it would be appropriate for Conservationists to understand why.

Foot and Mouth Disease in Sheep

- In order to detect to detect reductions of at least 5 percentage points, based on the known amount of sheep afflicted with Foot and Mouth Disease in Bryce National Park, a sample population of 510 would need to be studied.
- In Yellowstone, this study would take 1 week
- In Bryce this study would take 2 weeks

