# Capstone Project: Biodiversity

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#### Description of data in species\_info.csv

- Number of species categories: 7
- ► Number of unique scientific names: **5541**
- Number of common names: **5504**
- Number of conservation status categories: 5

### Significance calculations for endangered status between different categories of species

- Most species do need no intervention
- ► The highest number of protected species belong to **Bird (75)** followed by **Vascular Plant (46)**; however, when calculating percentages the results look different.
- Mammals has the highest percentage of protected species (17%), followed by Birds (15%)
- The significance calculation results in Mammals more likely to be endangered than Reptiles, but <u>not birds</u>.

## Recommendation for endangered species

As a result of the analysis, conservationists should focus their efforts on Mammals

### Description of sample size for the foot and mouth disease study

- ▶ 15% of sheep at Bryce National Park have foot and mouth disease
  - ▶ Baseline conversion rate: 15%
- Statistical significance: 90%
- Minimum detectable effect: 15%
- Sample size: 870
- Bryce National Park: There is a sighting of 250 sheep every week.
  - ▶ It would take 3 weeks to observe sheep at Bryce National Park in order to observe enough sheep
- Yellowstone National Park: There is a sighting of 507 sheep every week.
  - ▶ It would take 1 weeks to observe sheep at Bryce National Park in order to observe enough sheep

#### Appendix

Graphs



