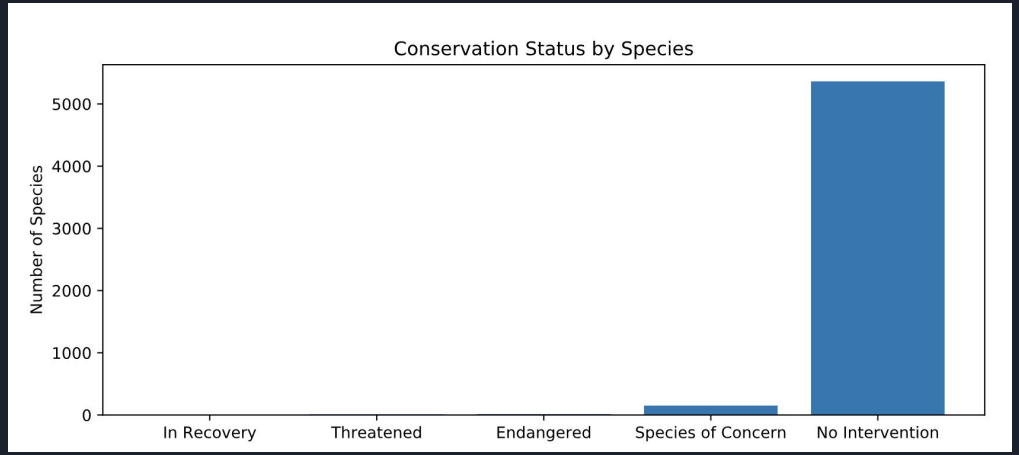
Biodiversity
In National Parks

Species Information

- Over 5,500 unique species
  - 151 species of concern
  - 15 endangered
  - 10 threatened
  - 4 in recovery
  - 5,361 no intervention



Species Information

- Mammals are the most protected
- Vascular Plants need the most attention considering the low protection rate and the high volume

Category	Not Protected	Protected	Percent Protected
Mammal	146	30	17.05%
Bird	413	75	15.37%
Amphibian	72	7	8.86%
Fish	115	11	8.73%
Reptile	73	5	6.41%
Nonvascular Plant	328	5	1.50%
Vascular Plant	4,216	46	1.08%

Are Species More Likely To Be Endangered?

- Mammals vs Birds
  - Not a significant difference.
  - Mammals are not more likely to be endangered than birds.
    - This only happens by chance.

- Reptiles vs Mammals
  - There is a significant difference.
  - Reptiles are more likely to be endangered than mammals

- All Animals vs Plants
  - Both plants are more likely to be more likely to be endangered than animals
  - However, the Nonvascular plants are not more likely to be endangered than Vascular plants

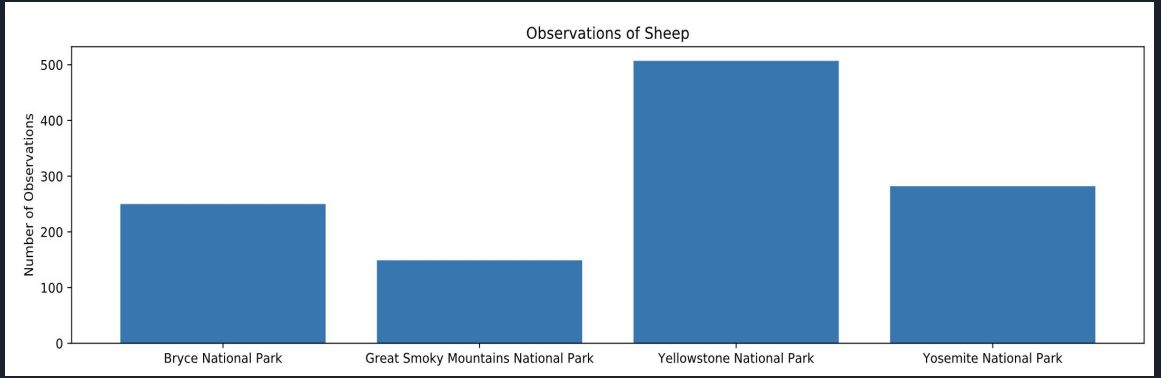
Recommendation

- Because plants are more likely to be endangered than any other species they should be addressed first.

- Since both plants are not more likely be endangered compared to each other, it is recommended to start with the Vascular Plants since they have a lower protection rate.

Sheep Sightings

- Yellowstone National Park has had the most sheep sightings (507)
- Great Smoky Mountains National Park has had the least sheep sightings (149)



Foot and Mouth Disease Reduction Effort

- The scientists wanted to see at least a 5% reduction of the disease in each park with 90% confidence
  - This equates to a minimum detectable effect of 33.33%
- This requires a sample size of 870 sheep sightings to reach significance
  - This would take different amount of time for each park
    - Bryce National Park - 3.48 weeks
    - Great Smoky National Park - 5.82 weeks
    - Yellowstone National Park - 1.72 weeks
    - Yosemite National Park - 3.09