

Biodiversity for the National Parks

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Endangered Species

- Species Tracked by Study
- Conservation Status of Species
- Category of Species Most at Risk
- Significance Calculations
- Recommendations to Conservationists
- Sample Size of Foot and Mouth Disease Study

Species Tracked by Study

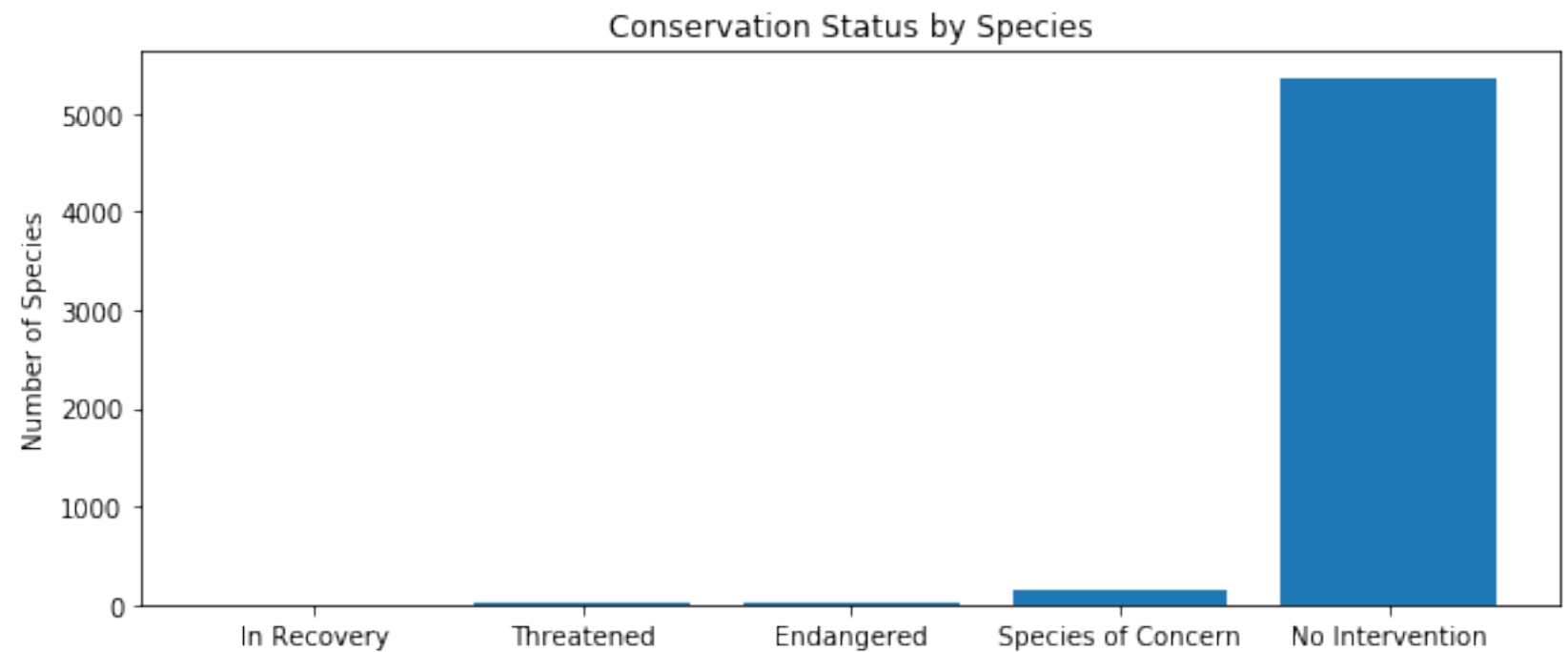
- The Study Tracked 5541 Unique Species
- Species Fell into 7 Categories
 - Mammal
 - Bird
 - Reptile
 - Amphibian
 - Fish
 - Vascular Plant
 - Nonvascular Plant

Species Were Given one of the Following Conservation Statuses

- Species of Concern: declining or appear to be in need of conservation
- Threatened: vulnerable to endangerment in the near future
- Endangered: seriously at risk of extinction
- In Recovery: formerly Endangered, but currently neither in danger of extinction throughout all or a significant portion of its range
- No Intervention: Not categorized by this study.

Conservation Status by Species

- Species of Concern: 151
- Threatened: 10
- Endangered: 15
- In Recovery: 4
- No Intervention: 5363



What Categories of Species are Most at Risk?

- To determine which category is most at risk we did a count on all species with a status other than No Intervention and then compared that with all Protection Statuses.
- Our Research Showed Mammals and Birds are the most Protected.

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
Nonvascular Plant	328	5	0.015015
Reptile	73	5	0.064103
Vascular Plant	4216	46	0.010793

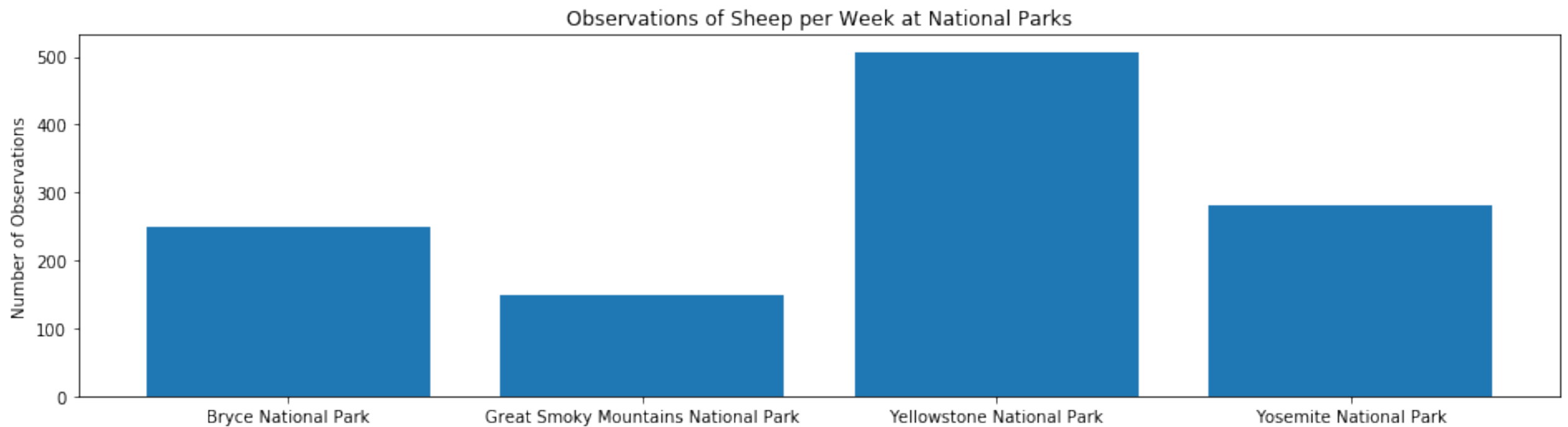
Mammals vs. Birds

- In our Study the following were the Protection Statuses:
 - Mammals: 0.17
 - Birds: 0.15
- To Determine if there was a Significant Difference Between the Protection Status of Mammals vs Birds a Chi Square Test was Performed. No Significant Difference was Found.

Recommendation

- The Categories of Species Having the Highest Protection Status are Mammals and Birds.
- Conservation Efforts Should be Focused on these Categories of Species.

Sheep - Foot and Mouth Disease Study



Determining Effectiveness of Foot and Mouth Treatment at Yellowstone National Park

- 15% of Sheep at Bryce National Park have Foot and Mouth Disease
- Yellowstone National Park has been running a program to reduce the rate of Foot and Mouth Disease in their Park
- In Order to Effectively Detect if the Program is Working we Would Need to Observe 510 Sheep. This would take Approximately 2 Weeks at Bryce National Park and Approximately 1 Week at Yellowstone National Park.