

A wide-angle photograph of a desert canyon at sunset. The sun is low on the horizon, casting a warm orange glow over the scene. The sky is filled with soft, wispy clouds. The canyon walls are made of layered, reddish-brown rock. A winding river flows through the canyon, reflecting the light from the sun. Several large, rounded rock formations protrude from the riverbed. The overall mood is serene and majestic.

Endangered Species Update

National Parks Service

Our Data on Animal Conservation

(gathered from species_info.csv)

Different species in our parks: 5,541

Categories of species: Mammal, Bird, Reptile, Amphibian,
Fish, Vascular Plant, Nonvascular Plant

Categories of Endangerment



Species of Concern: declining population or appears 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 not in danger of extinction

throughout all or a significant portion of its inhabitable range.

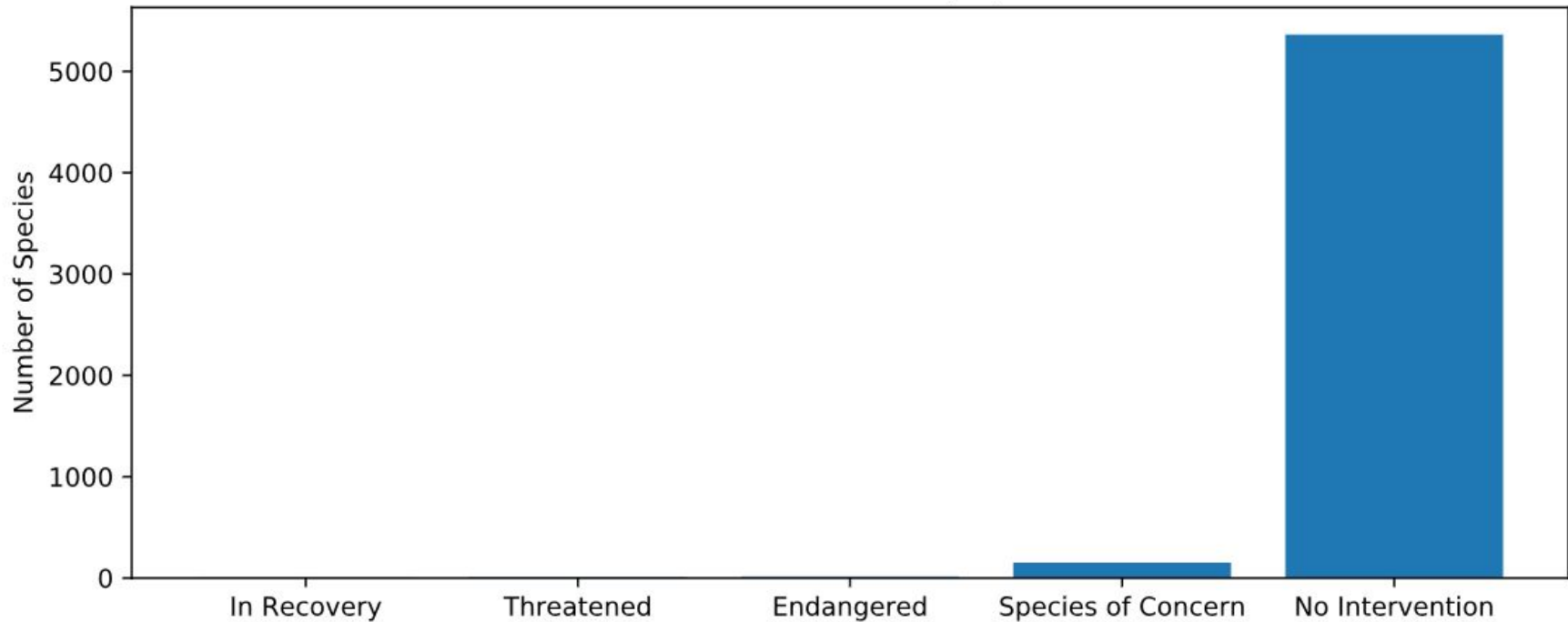
Total Number of Endangered Species

Overall, the % of species that are protected is still very small.

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

Endangered vs. Non-endangered Species

Conservation Status by Species





Are certain types of species more likely to be endangered?

Let's start by looking at the percentages of protected species:

Amphibian	8.86%
Bird	15.37%
Fish	8.73%
Mammal	17.04%
Nonvascular Plant	1.50%
Reptiles	6.41%
Vascular Plant	1.08%

We used the Chi-Squared Test to check for significance between the different species and their levels of endangerment. If our p-value is less than .05, then there is significance in the findings.

According to our findings, it is possible that of all species **mammals** are especially prone to endangerment. In our Chi-Squared tests, there were p-values of significance when comparing the mammals to reptiles and borderline significant values when compared to fish. My recommendation would be that conservationists keep a close eye on this pattern in regards to mammals. Further, in-depth research that focuses on mammals as a subject of concern would be of most benefit in avoiding further endangerment or possible extinction of any other mammals.

National Parks' Sheep Situation: Just how 'baaaaaad' is it?

Total number of sheep observed in the past 7 days:

Bryce National Park: 250

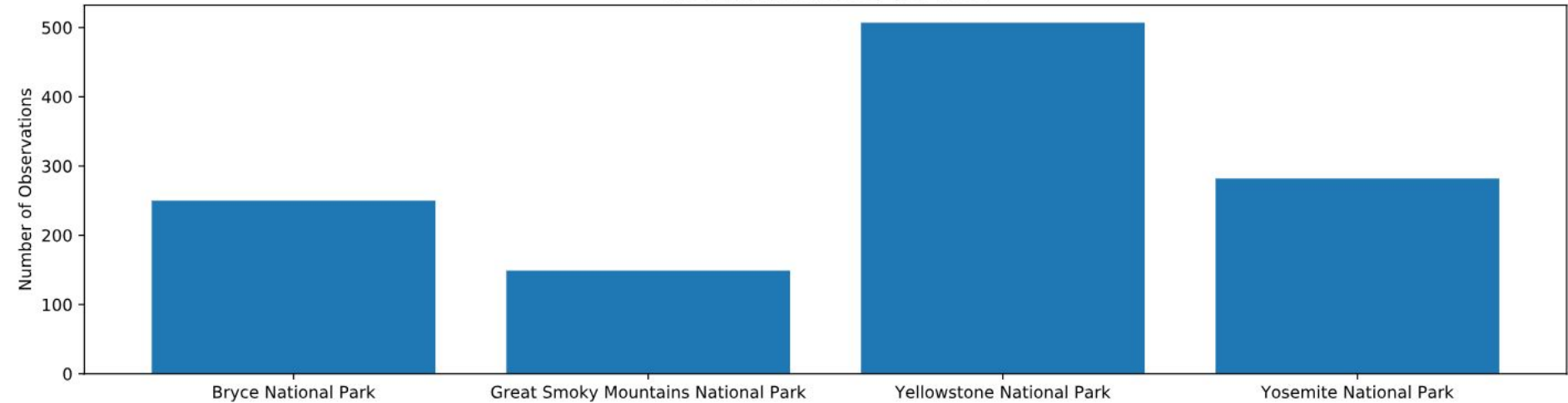
Great Smoky Mountains National Park: 149

Yellowstone National Park: 507

Yosemite National Park: 282

Sheep Sightings at Four National Parks

Observations of Sheep per Week



Foot and Mouth Disease Reduction Effort (Sheep)

In an effort to get a more accurate reading of how many sheep in our parks have this disease, we need to obtain a significant sample size. Using the sample size calculator, we utilized our baseline conversion rate of 15% that we obtained from the scientists' work last year at Bryce National Park. We also obtained a minimal detectable effect by multiplying our desired % change of confidence by 100 and dividing that by our baseline % number. Lastly, we used a standard statistical significance of 90%. Using those inputs we came up with a sample size of 870. Then we divided that result by the number of sheep observed weekly at the four separate parks and came up with the amount of time that each park would need to observe to be able to predict the future findings of diseased sheep with confidence.

Further Number of Weeks Needed to Observe Sheep

Bryce National Park- 3.48 weeks

Great Smoky Mountains National Park- 5.84 weeks

Yellowstone National Park- 1.72 weeks

Yosemite National Park- 3.09 weeks

