

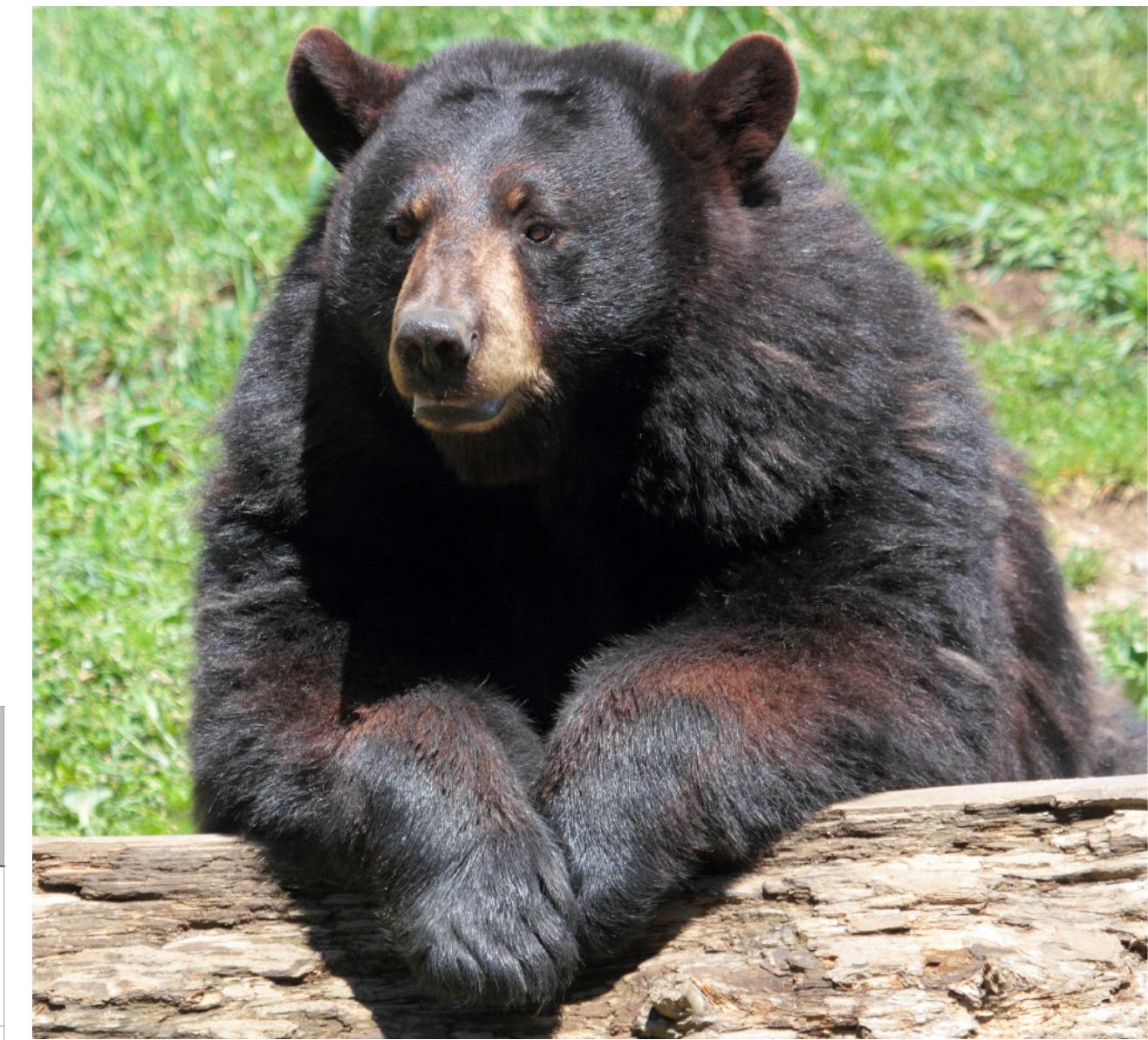


Biodiversity U.S. National Parks

Species Overview

- * There are 5541 different species!
- * The variety of species consists of
 - Mammals
 - Birds
 - Reptiles
 - Amphibians
 - Fish
 - Vascular plants (greatest variety)
 - Nonvascular Plants

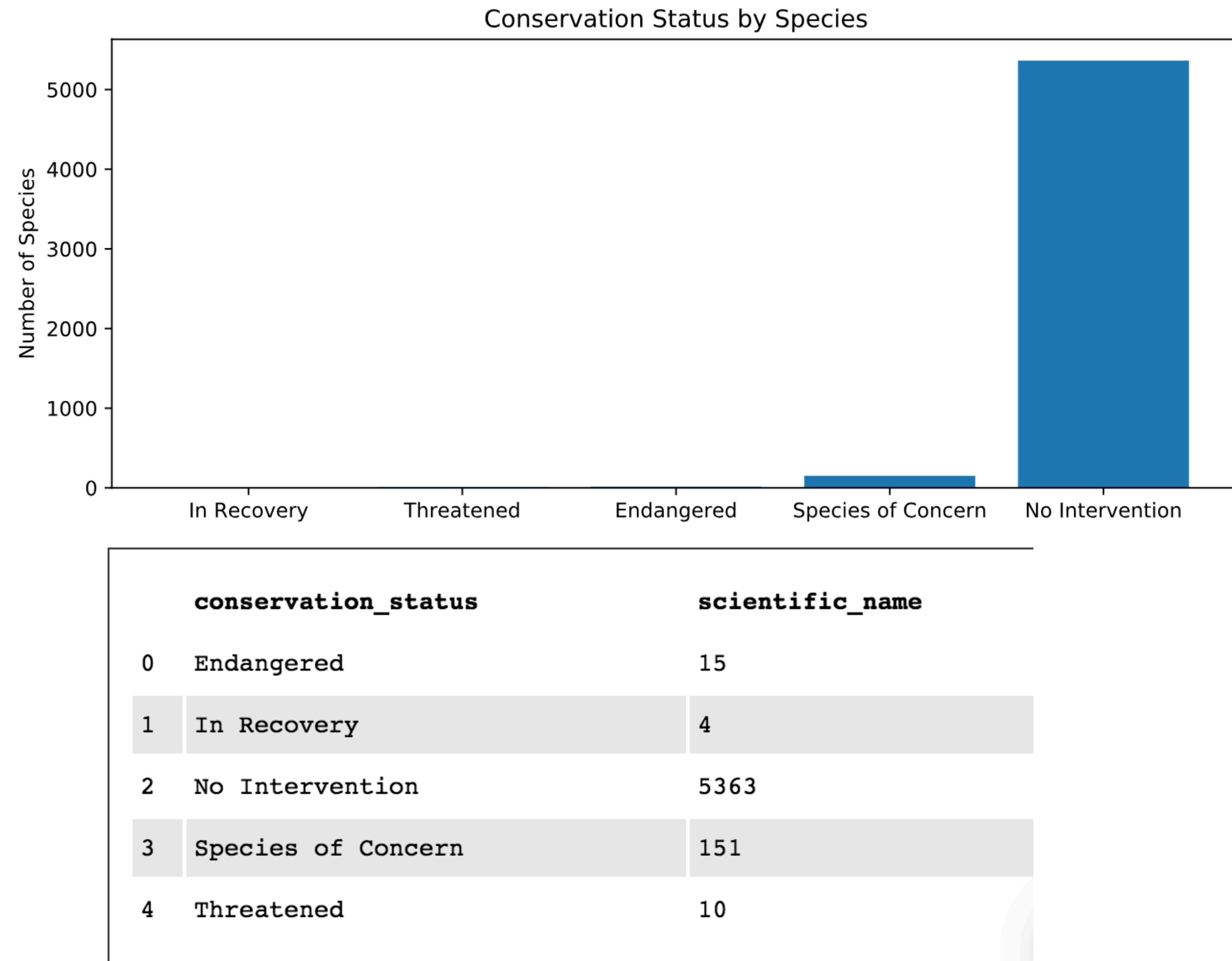
Category	Count
Reptile	79
Amphibian	80
Fish	127
Mammal	214
Nonvascular Plant	333
Bird	521
Vascular Plant	4470



Endangered Status Comparison

Findings

- * Thankfully, the vast majority of species do not require conservation intervention!
- * However, some species are in danger
- * Over 2% are rated as Species of Concern — of these, birds, vascular plants, and mammals make up the largest volume
- * And several bird and mammal species also listed as endangered or threatened



Results Significance



Findings

- * The two species types most at risk of becoming endangered are mammals with 17% of the population at risk
birds with 15% of the population at risk
- * Certain types of species are more likely to become endangered than others
- * Types of species with significant difference in susceptibility include

More likely	Less likely
mammals	reptiles
mammals	fish
birds	fish

Recommendation

- * Focus conservation efforts on those species which are the most likely to become endangered, such as mammals and birds
- * Perform regular analysis of all populations to assess risk over time

Foot and Mouth Disease Analysis

Findings

- * Last year it was recorded that 15% of sheep at Bryce National Park have foot and mouth disease
- * The goal is to detect reductions of at least 5 percentage points

Recommendation

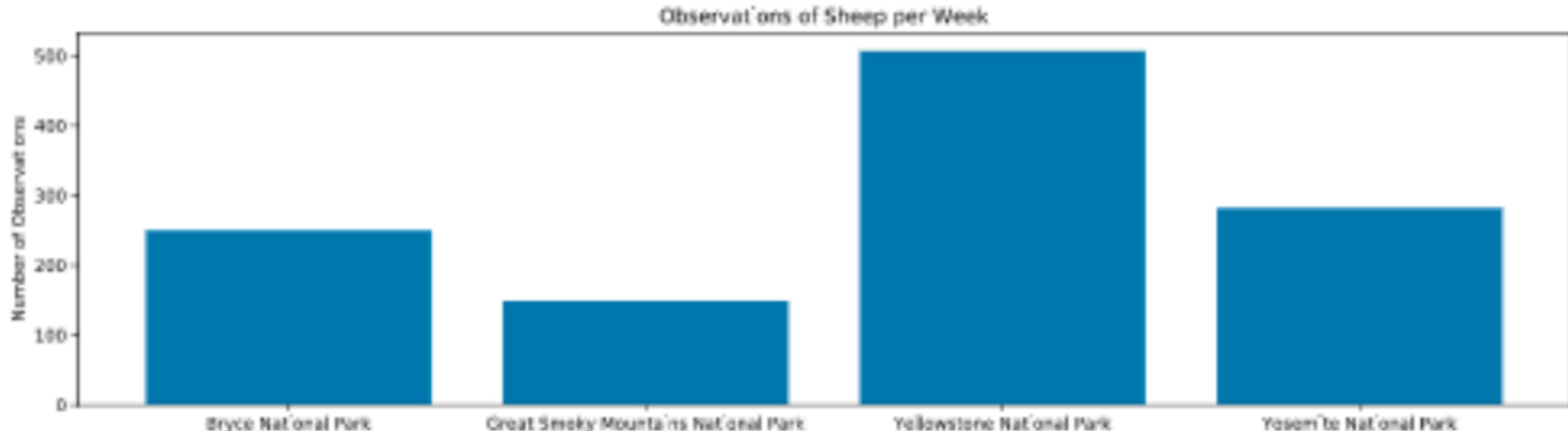
- * At Yellowstone, scientists would need to observe 870 sheep to ensure foot and mouth percentages are significant
- * which would take ~1 week, given the high number of sightings
- * due to the lower number of sightings at Bryce, 2+ weeks would be required to observe a significant change

Conservationists observed sheep species for a week in each of four parks

park_name	observations
0 Bryce National Park	250
1 Great Smoky Mountains National Park	149
2 Yellowstone National Park	507
3 Yosemite National Park	282



As you can see Yellowstone is sheep party central!



Thank you!

