National Park Service Biodiversity Report

March 2019 Update

Disclaimer: This is NOT a US government issue. This presentation was created as part of an intensive program at Codecademy.com.

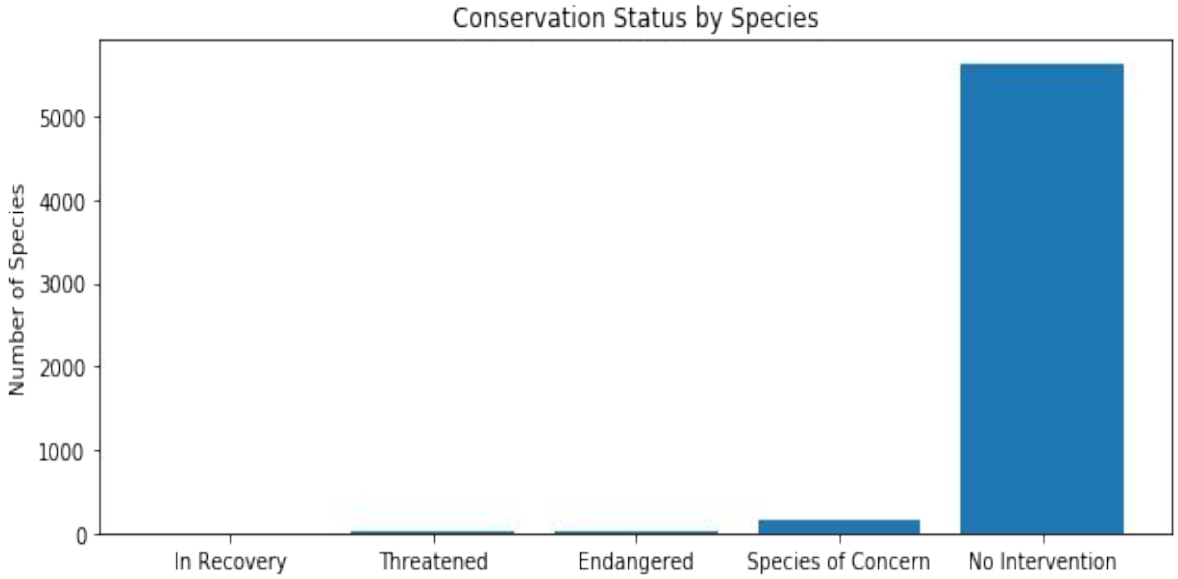
Data analyzed

- Recorded census data of species observed
- Conservation status of the species populations
  - Mammals
  - Birds
  - Reptiles
  - Amphibians
  - Fish
  - Reptiles
  - Vascular Plants
  - Non-vascular Plants

Current Conservation Status

- 15 species classified as “endangered”
- 10 species classified as “threatened”
- 151 Species of Concern
- 4 species “In Recovery”
- 5363 require no intervention

→ In total 180 species are included in some level endangerment at this time



Protected vs. Not protected

Category	Not protected	protected	protected in percent (rounded)
Amphibian	72	7	0,09%
Bird	413	75	0,15%
Fish	115	11	0,09%
Mammal	146	30	0,17%
Reptile	73	5	0,06%
Vascular Plant	4216	46	0,01%
Non-vascular Plant	328	5	0,01%

Differences in Likelihood of Endangerment

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- Based on available data, species of birds and mammals currently face no significantly different danger (p-value = 0.6876)
- Species of mammals are significantly more likely to be endangered than species of reptiles (p-value = 0.00000182)

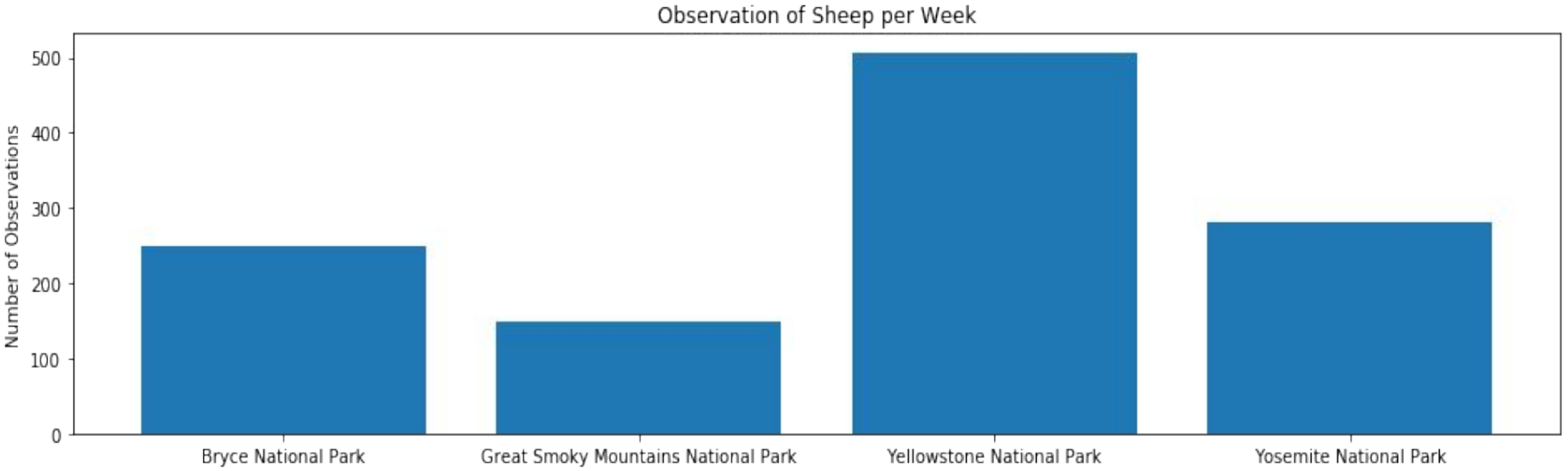
Recommendations

Based on the analyzed data we recommend putting effort into protective measurements for mammalian species populations in the observed parks.

Foot- and Mouth-Disease in Sheep-Study

- Foot- and mouth-disease is an infectious viral disease that affects cloven-hoofed animals
- Known prevalence of 15% of sheep population in observed areas
- Multi-site study carried out (Bryce National park, Yellowstone National park)
- Sample size calculated for evaluation of current efforts to reduce number of cases

Observed Individuals in Total



Sample Size Determination

- Minimum Detectable Effect: 33.33%
- Level of Significance: 90%
- Baseline Conversion rate: 15%
- Sample Size: 870

Recommendations for Observation Periods

Based on the calculations done we recommend an observation period of about 3.5 weeks at Bryce National Park, and an observation period of about 1.7 weeks at Yellowstone National Park to reach the sample sizes needed.

Thank you

For further information and requests please contact the

the Data Analysis Division at National Park Services,

US Department of the Interior