Biodiversity in National Parks

Dataframe observation

- The species datasets contains 5,824 records
- The dataset contains 4 fields
- There are 5,541 unique species, based on unique Scientific Names
- There are 7.0 unique categories in the dataset

What has happened with our species

	category	scientific_name	common_names	conservation_status
0	Mammal	Clethrionomys gapperi gapperi	Gapper's Red-Backed Vole	nan
1	Mammal	Bos bison	American Bison, Bison	nan
2	Mammal	Bos taurus	Aurochs, Aurochs, Domestic Cattle (Feral), Domesticated Cattle	nan
3	Mammal	Ovis aries	Domestic Sheep, Mouflon, Red Sheep, Sheep (Feral)	nan
4	Mammal	Cervus elaphus	Wapiti Or Elk	nan

Our Specieses are in Danger

Only few number of species have been handled. Most of them are not taking care of.

	conservation_status	scientific_name
1	Endangered	15
2	In Recovery	4
3	No Intervention	5363
4	Species of Concern	151
5	Threatened	10

What are the specieses that most endangered?

Birds and Mamal are the specieses

	category	not_protected	protected	percent_protected
0	Amphibian	72	7	9%
1	Bird	413	75	15%
2	Fish	115	11	9%
3	Mammal	146	30	17%
4	Nonvascular Pla	328	5	2%
5	Reptile	73	5	6%
6	Vascular Plant	4216	46	1%

Observation in 4 National Park

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

A Recommendation for Conservationists

Based on the analyzing data, conservationists should prioritize Mammal in top of the other species

Foot and Mouth Disease Study

The baseline percentage of this sample size determination is 15

Minimum Detectable Effect is 33.33% and sample size = 870

In order to reach the desire levels of observations in each one of the parks selected:

- It will take 3 weeks at Bryce National Park base on 250 sheep observations per week
- It will take 1 week at Yellowstone National Park base on 507 sheep observations per week

Conservation Status by Species

Observations of Sheep per Week