BIODIVEERSITY ANALYSIS

BY COREY ROSS

Species

Consists of 7 different categories of animals

- Mammals, bird, fish, amphibian, reptile, nonvascular plant, vascular plant

These 7 categories are broken up into 4 statuses of conservation

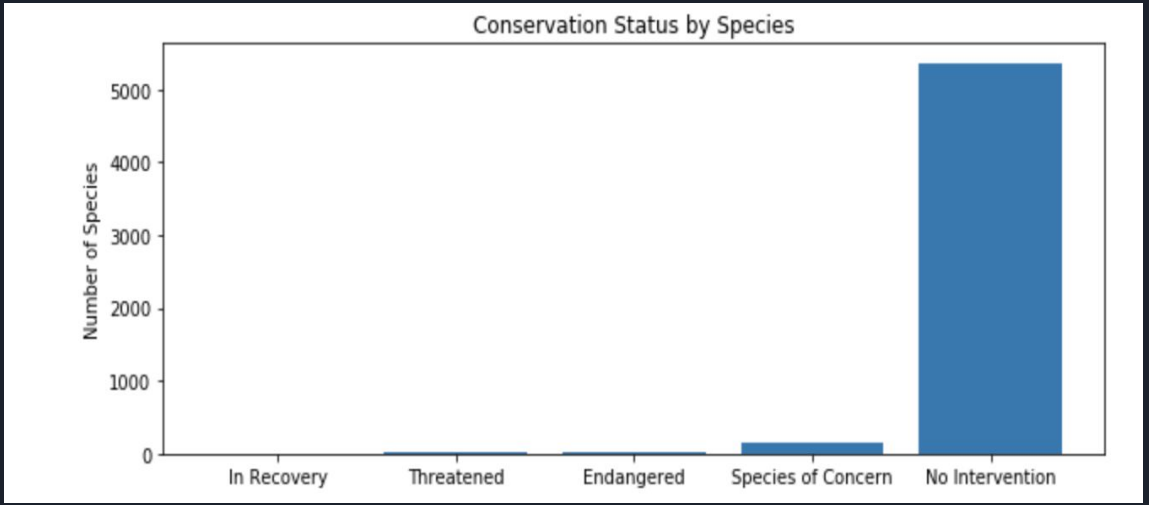
- Endangered, In Recovery, Species of Concern, Threatened

	conservation_status	scientific_name
0	Endangered	15
1	In Recovery	4
2	Species of Concern	151
3	Threatened	10

Reptiles and Non Vascular Plants are the least protected

Birds and Vascular Plants are the most protected

	category	not_protected	protected	percent_protected
0	Amphibian	72	7	0.088608
1	Bird	413	75	0.153689
2	Fish	115	11	0.087302
3	Mammal	146	30	0.170455
4	Nonvascular Plant	328	5	0.015015
5	Reptile	73	5	0.064103
6	Vascular Plant	4216	46	0.010793



My recommendation for conservationist is to simply intervene in more species cases to help preserve more animal life, especially mammals and birds. Give the reptiles more attention, along with the nonvascular plants!

Mammals vs Birds vs Reptiles

When the number of protected mammals vs birds and unprotected mammals vs birds were placed into a contingency to run in a chi2 test we saw that the data was not significant enough to see a difference

But when Mammals were placed against the protected and unprotected reptiles the difference was heavily significant

	category	not_protected	protected	percent_protected
0	Amphibian	72	7	0.088608
1	Bird	413	75	0.153689
2	Fish	115	11	0.087302
3	Mammal	146	30	0.170455
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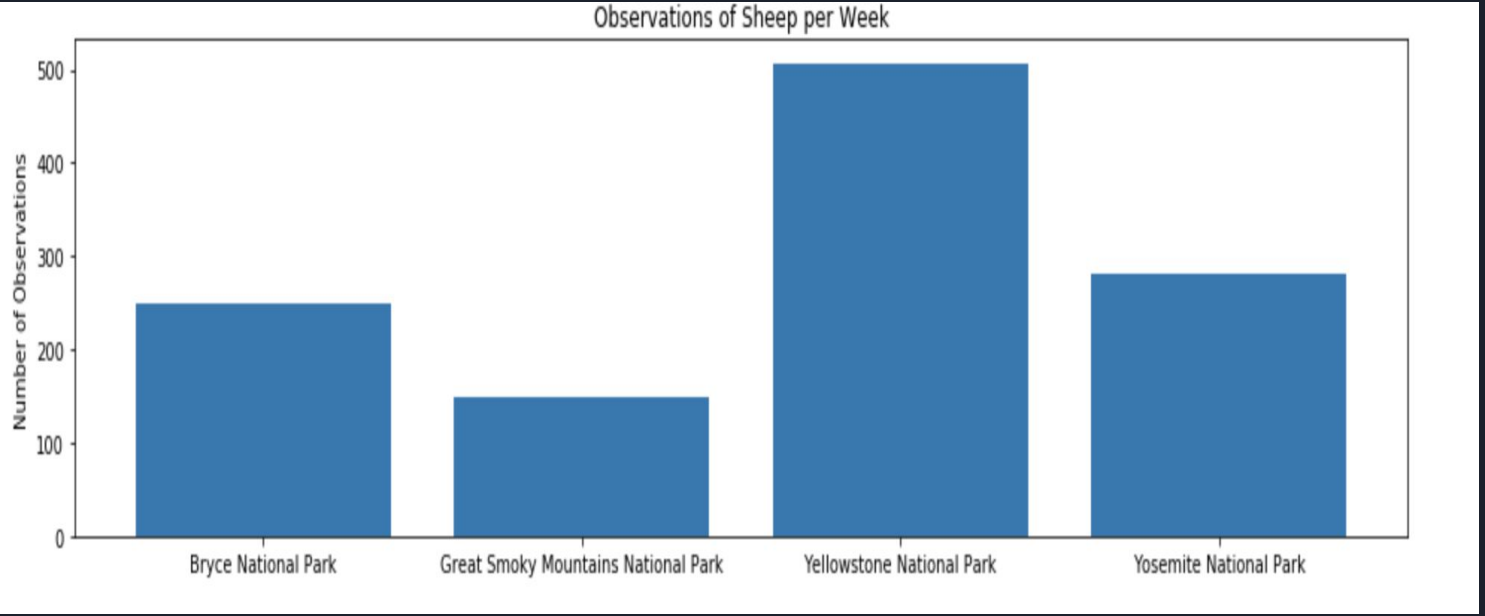
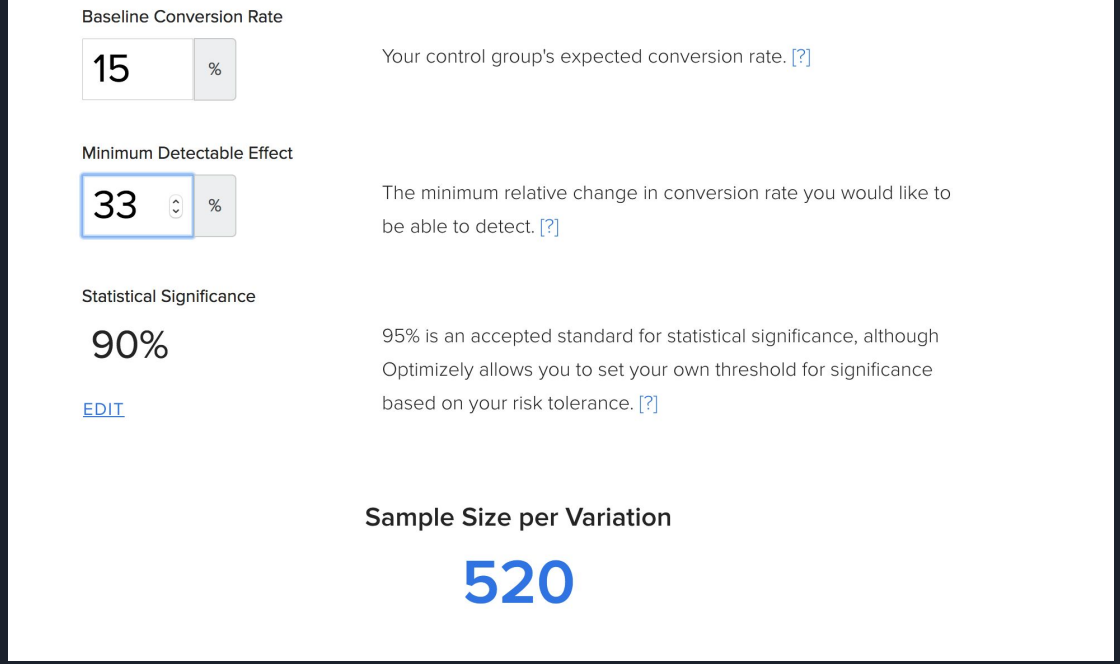
Sheep observations by Park





I used 15% because that was the percentage given by the observationist so I could get the higest amount possible because Yellowstone has a higher amount of sheep sightings so naturally more would have foot and mouth. 33 % because 100 * 0.05 / 0.15 = 33.33...so I just used the whole number and we were instructed that a 90 stat significance was necesaary so that brought me to obtaining a sample size of 520