<u>BIODIVEERSITY</u> 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

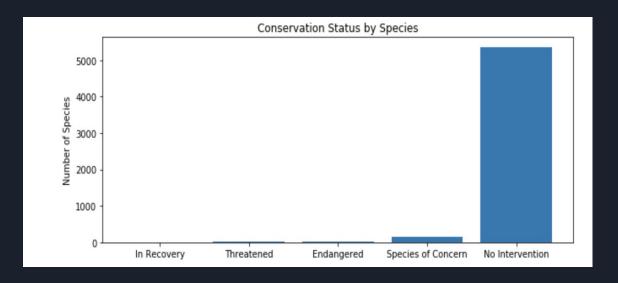
☐ Endangered, In Recovery, Species of Concern, Threatened

	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

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

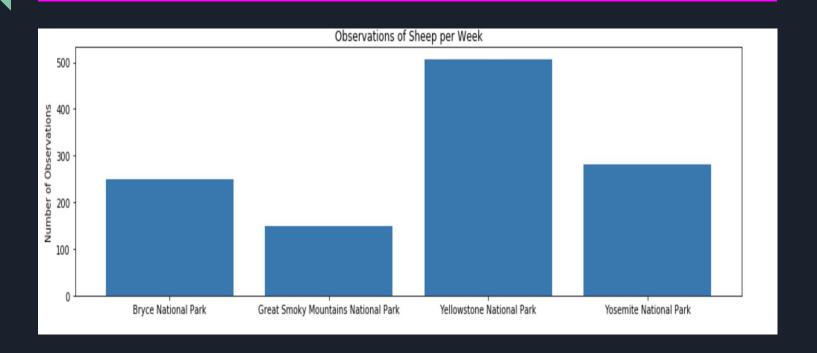
When the number of protected mammals vs birds and unprotected mammals vs birds were placed into a contingency to run in a chi2 test we saw that the data was not significant enough to see a difference

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
4	Nonvascular Plant	328	5	0.015015
5	Reptile	73	5	0.064103
6	Vascular Plant	4216	46	0.010793

Sheep observations by Park



Baseline Conversion Rate

15

Your control group's expected conversion rate. [?]

Minimum Detectable Effect

The minimum relative change in conversion rate you would like to be able to detect. [?]

Statistical Significance

95% is an accepted standard for statistical significance, although Optimizely allows you to set your own threshold for significance based on your risk tolerance. [?]

Sample Size per Variation

520

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 necessary so that brought me to obtaining a sample size of 520