BIODIVERSITY FOR THE NATIONAL PARKS

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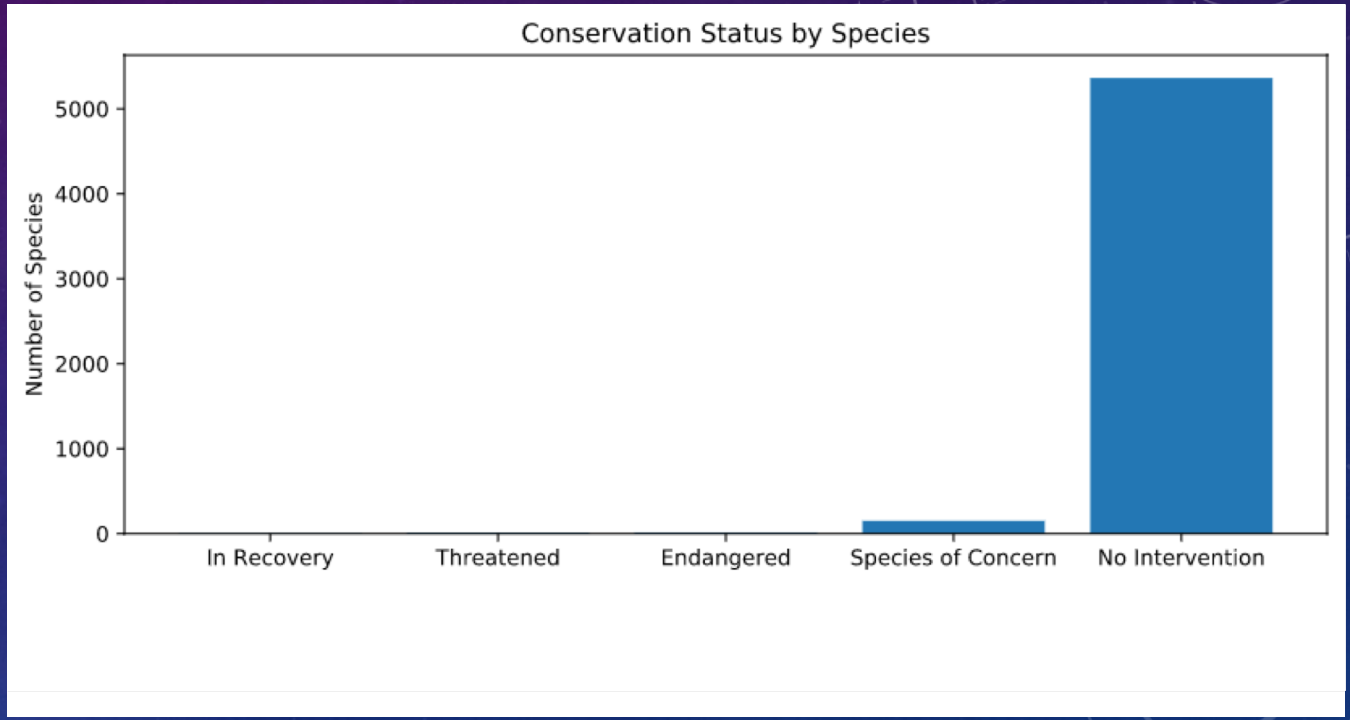
PROJECT I - PROTECTED SPECIES STUDIES

	Not protected	Protected	% protected
Amphibian	72	7	8.86%
Bird	413	75	15.37%
Fish	115	11	8.73%
Mammal	146	30	17.05%
Nonvascular Plant	328	5	1.50%
Reptile	73	5	6.41%
Vascular Plant	4216	46	1.08%

Table 1. Number or protected and not protected species for different categories.



Graph 1. Conservation status by species.

Graph 1 shows that the majority of the species have conservation status – “no intervention”.

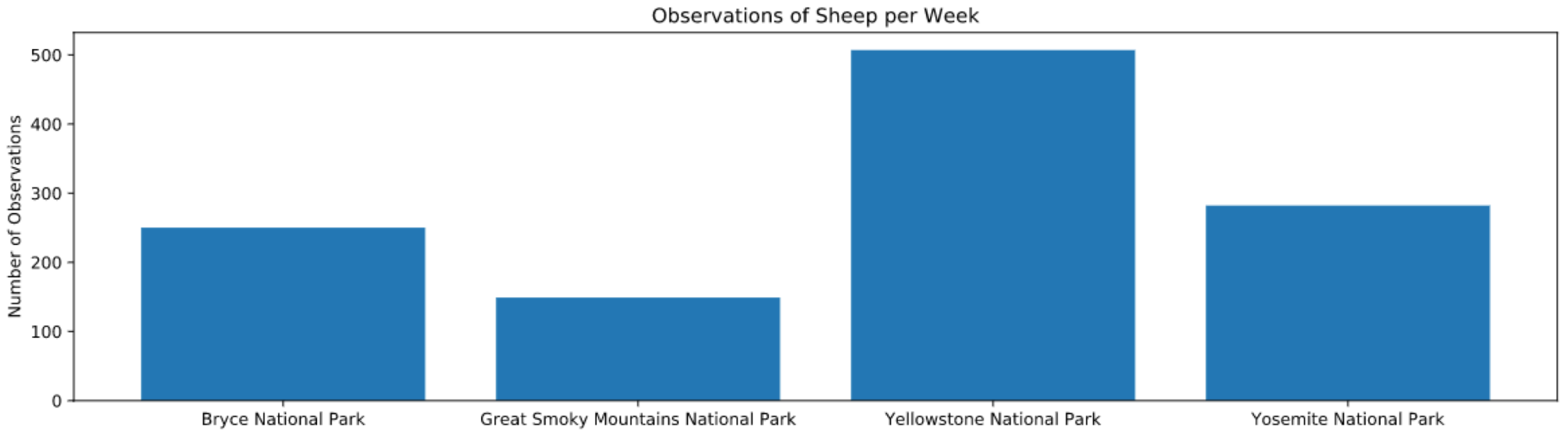
PROJECT I -PROTECTED SPECIES STUDIES

	Amphibian	Bird	Fish	Mammal	Nonvascular Plant	Reptile	Vascular Plant
Amphibian	*						
Bird	0.175	*					
Fish	0.824	0.076	*				
Mammal	0.127	0.688	0.056	*			
Nonvascular Plant	0.001	0.000	0.000	0.000	*		
Reptile	0.781	0.053	0.740	0.383	0.033	*	
Vascular Plant	0.000	0.000	0.000	0.000	0.662	0.000	*

Table 2. P-values calculated for the species' categories pairs based on Chi Square test. Highlighted are pairs with p-value < 0.05.

P-value shows if one category of species is more endangered than another.
Based on the p-values we can see, that certain types of species *are* more likely to be endangered than others.

PROJECT II - FOOT AND MOUTH REDUCTION EFFORT - SAMPLE SIZE DETERMINATION



Graph 2. Number of observations of sheep per week in different National Parks .

RECOMMENDATION FOR THE SAMPLE SIZE DETERMINATION

Data:
Significance level 90%
Baseline percentage 15%
Minimum detectable effect 33.33%
Sample size 870

Conclusions:
The drop in disease can be considered significant if the number of observed sheep equal 870. Based on these parameters and number of observations from previous slide, scientists will have to spend 2 weeks in Yellowstone park and 3.5 weeks in Bryce park in order to get enough sheep observations.