

# Species Analysis

By: Joe Leavitt





# Species info data analysis

- Omitting species that need no intervention, there is a high number of species of concern
- There are more birds that are currently protected compared to amphibians
  - Followed by plants, then mammals
- However, when looking at the percent of the species protected, mammals have the highest rate of protection when compared to their sample size as a whole.
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# Endangered Species deep dive

Looking at raw numbers of endangered species, it may seem like plants and birds are in the most danger. The plants however, are not as in danger relative to the number of species they have. However, the birds are in the most danger.

The birds should be our top priority, followed by mammals. This is based of the number of endangered species relative to the number of species there are.

Seeing the significant difference in these groups further justifies that that mammals and birds should be our top priority to protect.



# Endangered species recommendation

Based on the our calculations, we should focus on protecting the different species of mammals, followed by birds, then amphibians and fish.



# Sample size determination

For the sample size calculation, we need a baseline conversion rate of 15%.

The minimum detectable effect is equal to  $5/15$ , and we set default level of significance 90%.

Using the calculator, we get a sample size of 870.

Now combine that data with the data for parks, and if we want the sample size in Yellowstone we need  $870/507$  which is about two weeks.

But, in Bryce National Park, we need  $870/250$ , which is about four weeks.



# Graphs from data

