ALL SPECIES MATTER. ALL LIVING ORGANISMS MATTER.

How well do we know our endangered species

DATA we're working on

In this project, we'll look at the different categories each species.

Each species would have the following information:

- category of the species
- scientific name of the species
- common name of the species
- and conservation status.

The category is broken up into seven groups:

- Mammal, Bird, Reptile, Amphibian, Fish, Vascular and Nonvascular plant.

We also have different conservation status stages:

- n/a, species of concern, endangered, threatened, and in recovery

Definition of each Status:

Species of Concern: declining or appear to be in need of conservation

Threatened: vulnerable to endangerment in the near future

Endangered: seriously at risk of extinction

In Recovery: formerly Endangered, but currently neither in danger of extinction throughout all or a significant portion of its range

The NUMBERS game

TOTAL number of Species

5541

NUMBER of categories

7

DIFFERENT status stages

5

What’s next?

First, we need to know how many species falls under the different category and if we're not aware of its current status we'll create a new category named, No Intervention. The bar graph is shown on the last page, named *bar1*.

In this exercise, we found that most species were safe and no need for intervention.

Second, we need to check if from the list of categories, how many are protected and <u>not</u>.

Then let’s look at 7 categories, grouped them if they're protected and not protected. We also looked at the percentage of the protected species in each group.

This shows that mammals are more likely to be endangered and that vascular plants are the least protected species.

	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

Recommendation...

All species matters! In a perfect world, we would protect every single one of them so that our children's children's children would appreciate the beauty of the world. We've protected 17% of Mammals, 15% of Birds then amphibians, fish, reptiles, nonvascular plants and lastly vascular plants. We should observe and study the next group of species equally for they're all interconnected and one species affects the other. We need to find the balance so as not to disrupt the circle of life.

We were also tasked to analyze the sheep sighting at different national parks.

First, we need to pull the species that is flagged as sheep and is a mammal. From there, we need to see where each sheep was sighted.

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

Most of the sheep in our list can be found in Yellowstone National Park.

Foot and Mouth Disease

Our scientists know that 15% of sheep at Bryce National Park have foot and mouth disease.

That being said we have the percentage in each park.

Bryce National Park	– 62%
Great Smoky Mtn	– 80%
Yellowstone	- 44%
Yosemite	- 59%

Graphs used in this research

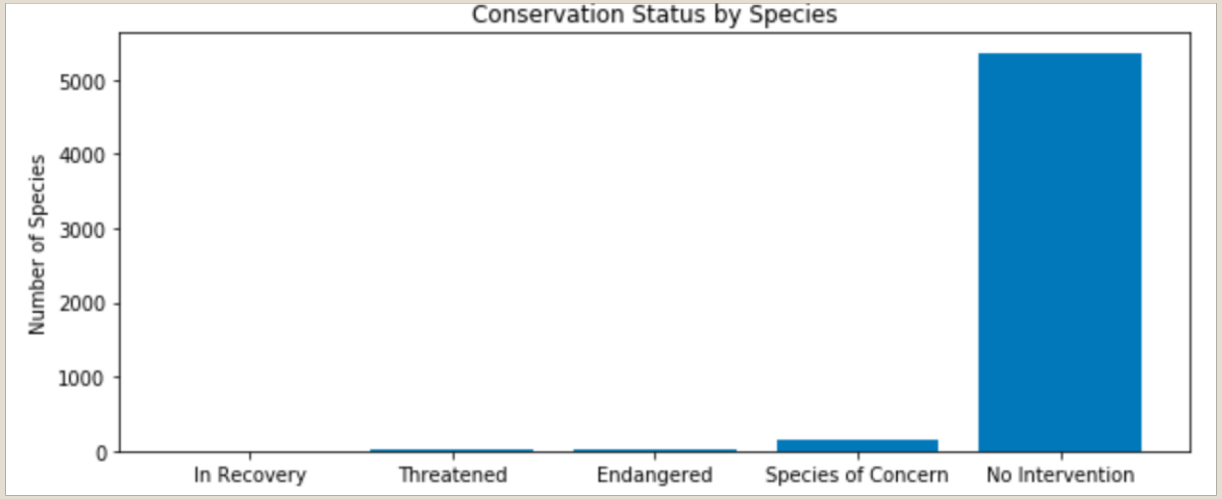

fig 1

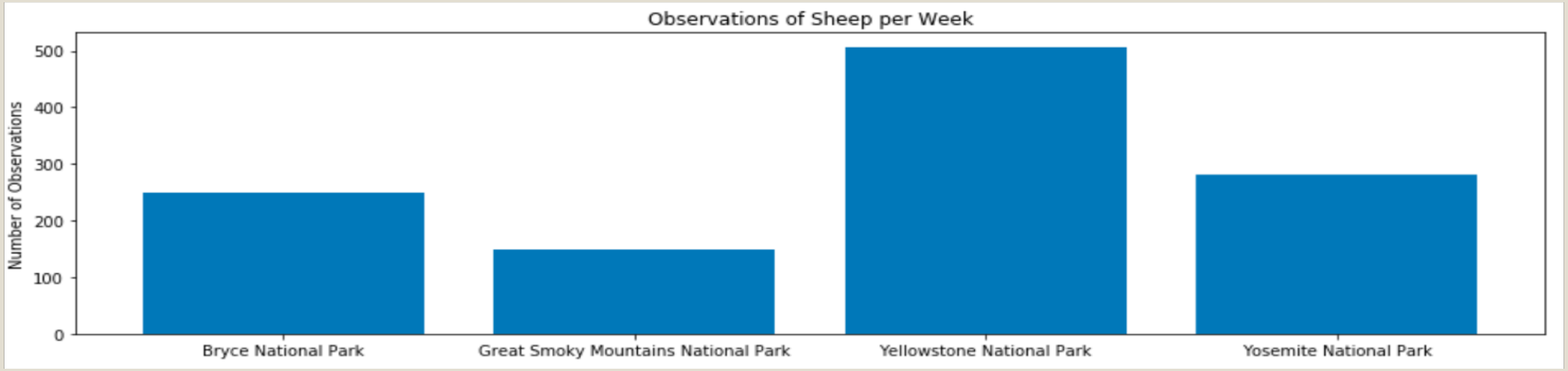

fig 2