

# Biodiversity in National Parks

## species\_info.csv

- The category of each species;
- The scientific name of each species;
- The common names of each species;
- The species conservation status.

How many different species are in the species DataFrame?

- 5541 species.

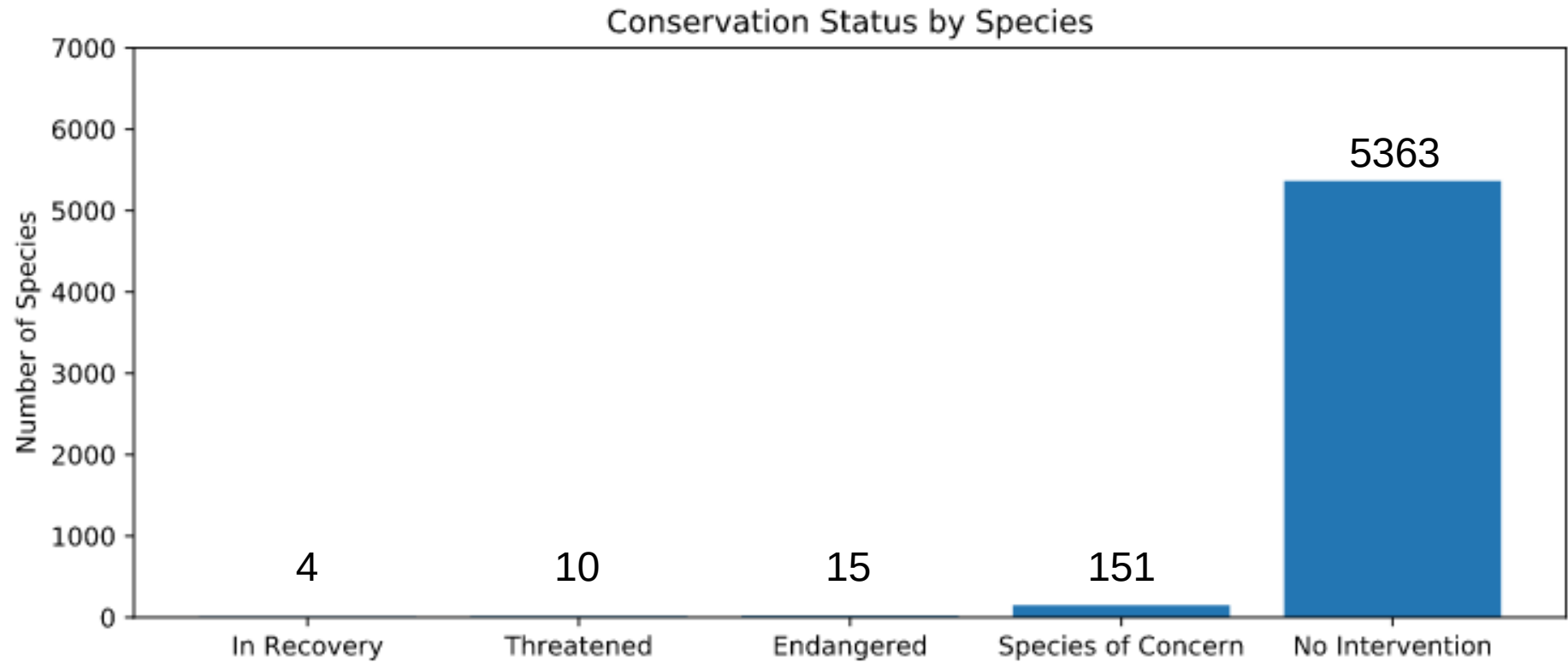
What are the different values of category in the DataFrame species?

- Mammal;
- Bird;
- Reptile;
- Amphibian;
- Fish;
- Vascular Plant;
- Nonvascular Plant;

What are the different values of conservation\_status?

- nan;
- Species of Concern;
- Endangered;
- Threatened;
- In Recovery.

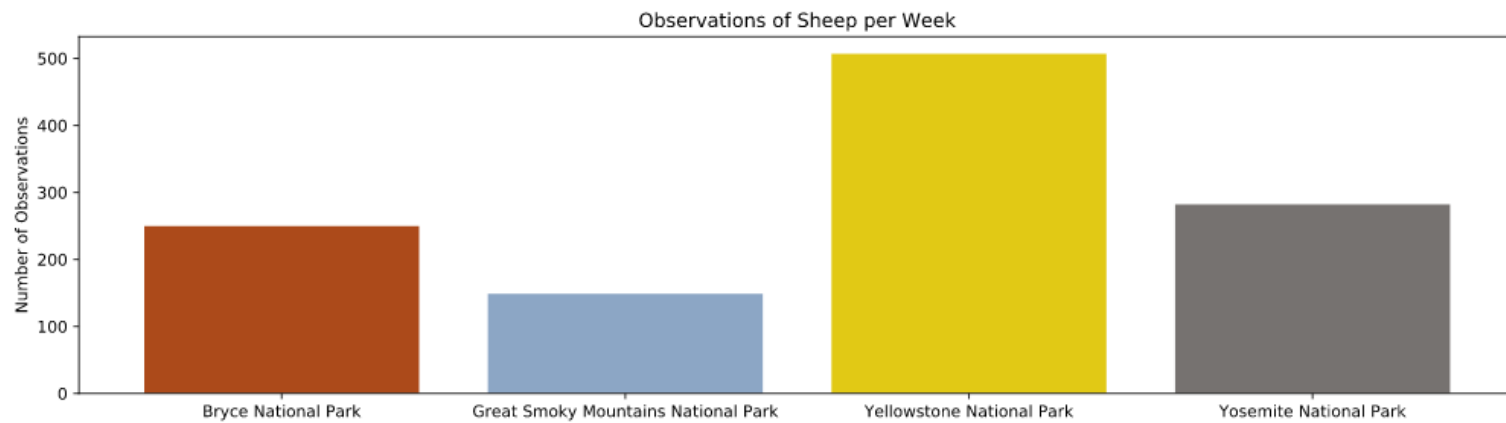
# Species Conservation Status



# Investigating Endangered Species

Category	Not Protected	Protected	Protected (%)
Amphibian	72	7	8.8
Bird	413	75	15.3
Fish	115	11	8.7
Mammal	146	30	17.0
Nonvascular Plant	328	5	1.5
Reptile	73	5	6.4
Vascular Plant	4216	46	1.0

Using a Chi-Squared Test for significance between mammals and birds we can say that the difference is not significant, and confirm that boths categories are more likely to be endangered.



## Foot and Mouth Reduction Effort

- The baseline conversion is 15%;
- The desired conversion is 10%;
- The statistical significance is 90%;
- The lift is 33.3%;
- The sample size for 33.3% is 510.

Park Name	Observations
Bryce National Park	250
Great Smoky Mountains National Park	149
Yellowstone National Park	507
Yosemite National Park	282

Yellowstone National Park Survey =  $510/507$  (Approximately 1 week)

Brice National Park Survey =  $510/250$  (Approximately 2 week)