

# BIODIVERSITY FOR THE NATIONAL PARKS

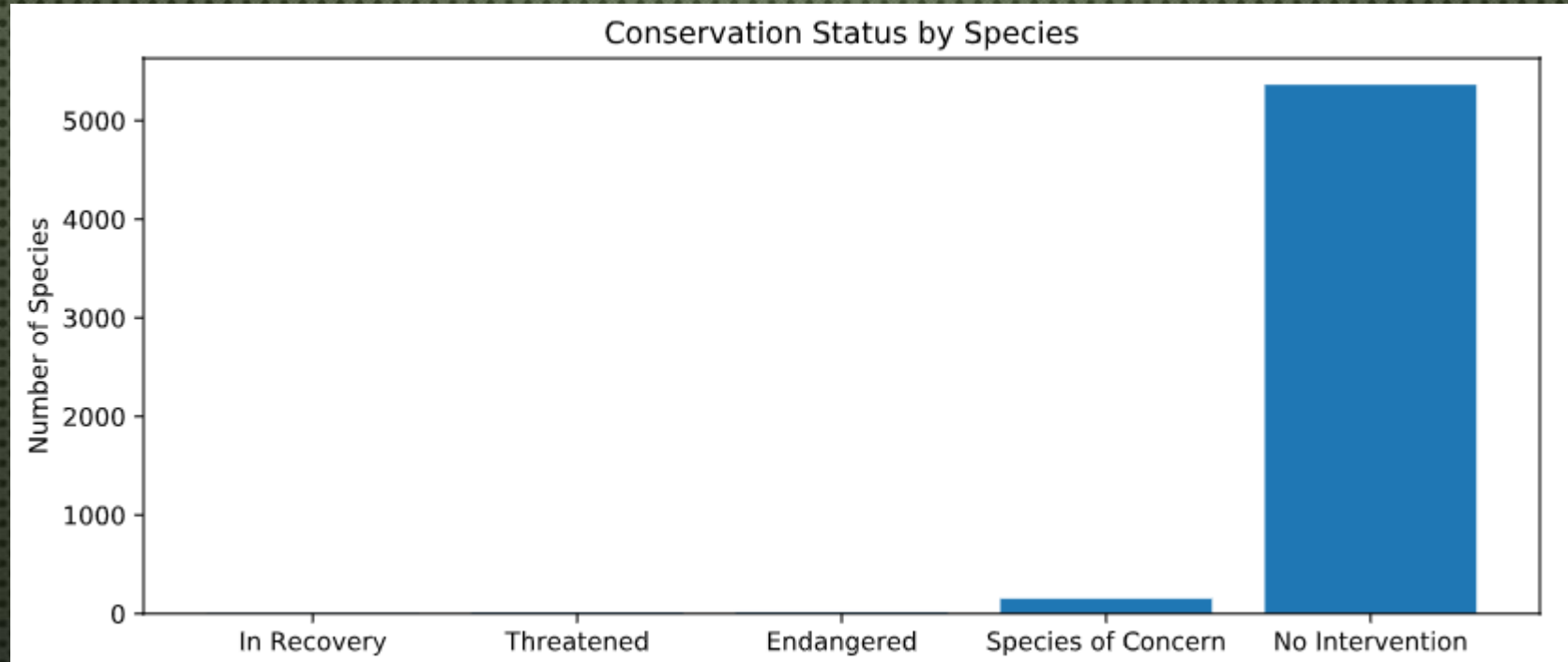
BRITTANY HAYNIE :: JAN 2018



# SPECIES & CONSERVATION STATUS

- THERE ARE 5541 UNIQUE SPECIES IN THE NATIONAL PARKS, WHICH EACH FALL INTO ONE OF THE FOLLOWING TYPE SPECIES
  - MAMMAL
  - BIRD
  - REPTILE
  - AMPHIBIAN
  - FISH
  - VASCULAR PLANT
  - NON-VASCULAR PLANT
- THESE SPECIES ALSO FALL INTO ONE OF THE FOLLOWING CONSERVATION STATUSES
  - SPECIES OF CONCERN
  - ENDANGERED
  - THREATENED
  - IN RECOVERY

# SPECIES & CONSERVATION STATUS



Conservation Status	No. Species
Endangered	15
In Recovery	4
No Intervention	5363
Species of Concern	151
Threatened	10



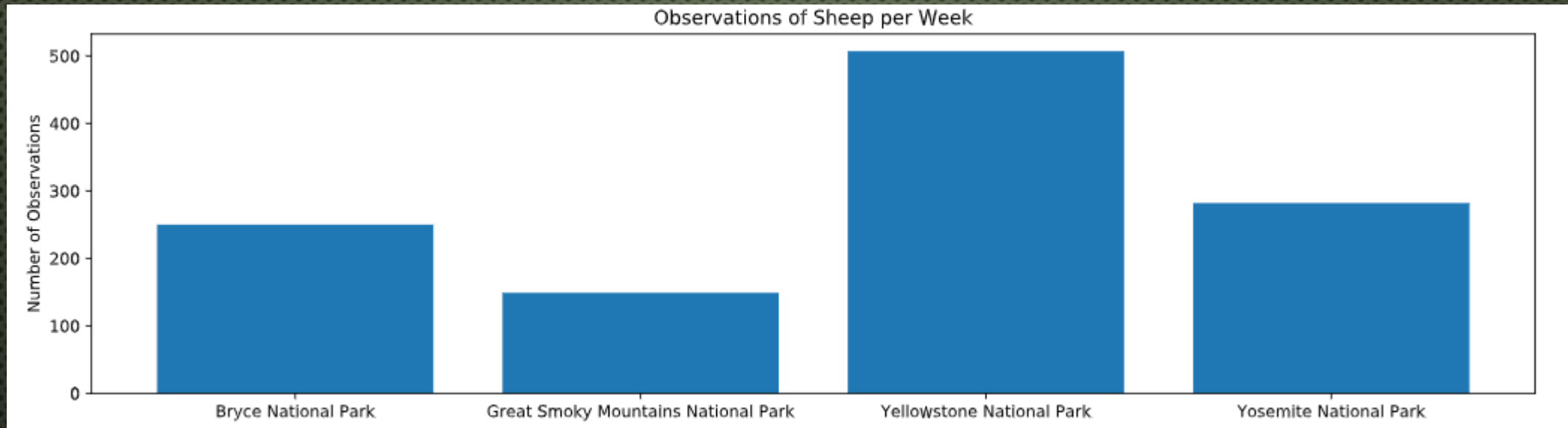
# SPECIES & CONSERVATION STATUS

Type Species	Not Protected	Protected	Percent 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%

- MAMMAL VS. BIRD
  - THE DIFFERENCE BETWEEN THE PROTECTED PERCENTAGE OF BIRDS AND MAMMALS IS NOT SIGNIFICANT (P-VAL 0.688) AND IS A RESULT OF CHANCE.
- REPTILE VS. MAMMAL
  - THE DIFFERENCE BETWEEN THE PROTECTED PERCENTAGE OF BIRDS AND MAMMALS IS SIGNIFICANT (P-VAL 0.038), SO OVERALL WE CAN CONCLUDE THAT **CERTAIN TYPES OF SPECIES ARE MORE LIKELY TO BE ENDANGERED THAN OTHERS.**
- RECOMMENDATION
  - CONSERVATIONISTS MUST DEVELOP PROGRAMS SPECIFICALLY FOR THE SPECIES MOST AT RISK IN ORDER TO PROTECT THEM

# SHEEP OBSERVATION & FOOT AND MOUTH DISEASE

OUR RESEARCHERS HAVE OBSERVED SHEEP IN THE PARKS FOR THE PAST WEEK; BELOW IS A SUMMARY BROKEN OUT BY LOCATION.





# SHEEP OBSERVATION & FOOT AND MOUTH DISEASE

- LAST YEAR, 15% OF ALL SHEEP IN THE PARKS HAD FOOT AND MOUTH DISEASE
- RESEARCHERS WISH TO DETECT REDUCTIONS OF AT LEAST 5 PERCENTAGE POINTS
- WE MUST OBSERVE A SAMPLE SIZE OF 870 SHEEP USING THESE VALUES AND 90% STATISTICAL SIGNIFICANCE
- BASED ON THE NUMBER OF SHEEP SIGHTED AT EACH PARK, WE WILL NEED THE FOLLOWING TIME AT EACH PARK TO MAKE THESE ASSUMPTIONS:

Park Name	Week Observations	Weeks Needed
Bryce National Park	250	3.48
Great Smoky National Park	149	5.84
Yellowstone National Park	507	1.72
Yosemite National Park	282	3.09