

Biodiversity in our National Forests

Ryan Walbridge
2018-04-08

Species Data

Number of different species:

- 5541

Species:

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

Conservation Statuses:

- No Intervention
- Species of Concern
- Endangered
- Threatened
- In Recovery

Species Investigations

<u>Conservation Status</u>	<u>Scientific Name</u>
Endangered	15
In Recovery	4
No Intervention	5363
Species of Concern	151
Threatened	10

<u>Category</u>	<u>Not Protected</u>	<u>Protected</u>	<u>Percent Protected</u>
Amphibian	72	7	0.088608
Bird	413	75	0.153689
Fish	115	11	0.087302
Mammal	146	30	0.170455
Nonvascular Plant	328	5	0.015015
Reptile	73	5	0.064103
Vascular Plant	4216	46	0.010793

Statistical Analysis of Species

Mammal Vs Bird Chi2 Test

Statistical Difference:

- 0.16170148316545574

Result:

- Not Significant

Reptile Vs. Mammal Chi2 Test

Statistical Difference:

- 4.2891830962036446

Result:

- Significant

Conservation Recommendations

- Birds and mammals are the species with the most protected and should have the most effort put forth to continue protection.

Sample Size Determination - Outcome

Data

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

Sample Size per Optimizely

Minimum Detectable Effect = $100 * 0.05 / 0.15$

MDE = 33.333333333333336

Baseline = 15

Sample Size Per Variation = 510

Weeks need for Observation

Bryce National Park = $510 / 250$

2.04 weeks of observation for Bryce National Forest

Yellowstone National Park = $510 / 507$

1.006 weeks of observation for Yellowstone National Forest



