Species observed within four United States’ National Parks

We performed an analysis using two documents that provided species’ scientific names, common names, the number of observations within four different national parks, the category of each species and the conservation status of each species. This analysis primarily focuses on the number of species across parks as well as the conservation status of species.

We combined the two documents into a single dataframe and identified a total of 5,824 species and their number of observations within each national park. The data was then reorganized to more easily view the number of observations for each species across each national park.

Of the 5,824 species listed, only 191 species were identified as either ‘Endangered,’ ‘Threatened,’ ‘Species of Concern,’ or ‘In Recovery.’ Most species were not provided a conservation status.

A few of the species were listed multiple times, such as the canis lupus, or gray wolf.

The following table provides a few insights into each national park. Least and most observations refer to the number of observations per species. These observations correlate with the species listed below. Total observations is the total number of observations for every species within the specified park.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Bryce | Great Smoky Mountains | Yellowstone | Yosemite |
| Least observations | 9 | 10 | 57 | 31 |
| Most observations | 176 | 147 | 321 | 223 |
| Species least observed | Corydalis aurea (vascular plant) | Collomia tinctoria (vascular plant) | Grus americana (bird) | Noturus baileyi (fish) |
| Species most observed | Valerianella radiata (vascular plant) | Sonchus asper (vascular plant) | Lycopodium tristachyum (vascular plant) | Ivesia shockleyi (vascular plant) |
| Total observations | 576,205 | 431,820 | 1,443,562 | 863,332 |

Evaluating the conservation status of each species shows that most endangered species are mammals, most species of concern are birds, and most species listed in recovery are birds. Only ten species are listed as threatened and they are evenly distributed across several categories.

In summary, we don’t have enough data to evaluate the conservation status of most of the species. However, we can see that most observations took place in Yellowstone National Park while Great Smoky Mountains National Park had approximately a third the number of observations as Yellowstone. Evaluating the conservation status of species within each park shows a similar trend with Yellowstone having approximately a total of 35,000 observations and Great Smoky Mountains having a total of approximately 10,000 observations.