

BIODIVERSITY CAPSTONE PROJECT

GINA GREENFIELD

DATA WITHIN SPECIES_INFO.CSV

- Endangered (seriously at risk of extinction) = 15
- In recovery (formerly endangered, but currently not in danger of extinction throughout all or a significant portion of its inhabitable range) = 4
- Species of concern (declining population or appears to be in need of conservation)= 151
- Threatened (vulnerable to endangerment in the near future) = 10
- No Intervention (do not need protection) = 5363

SIGNIFICANCE FOR ENDANGERED STATUS BETWEEN CATEGORIES

- Null hypothesis = The difference is a result of chance
 - Birds vs mammals
 - P-value = 0.688 (not significant)
 - Reptiles vs mammals
 - P-value = 0.038 (significant)

RECOMMENDATION FOR CONSERVATIONISTS

- The difference between the percentages of protected birds and mammals is not significant and is a result of chance
- However, certain types of species are more likely to be endangered than others
 - For example, mammals are more likely to be endangered than reptiles. Therefore, significance testing is important in determining whether or not a species is more likely to be endangered.

FOOT AND MOUTH DISEASE STUDY

- Given a 15% baseline, if scientists want to be sure the >5% drop in observed cases of foot and mouth disease in the sheep at Yellowstone was significant, they would have to observe at least 510 sheep.
- This would take approximately one week of observing in Yellowstone or two weeks in Bryce

