

This dataset on wildlife population and harvest data from the Forest Service Research & Development (FS R&D) includes data captured from 1955 until 2010. The question I'm exploring in this project has to do with the endangered or threatened status over time of mammals, reptiles, birds, amphibians, and all species as a whole. Specifically, do any species' trends correlate with another species' trends? Also, during which years are the numbers of endangered or threatened animals more likely to be higher or lower?

From looking at the relationships between these variables with scatter plots and correlation calculations, I can conclude that there is correlation between all of the variables tested. As time goes on, the number of threatened or endangered species increases, and in comparing different groups of species directly, there is a strong positive relationship, which is unfortunate and sad.

In terms of missing aspects of this analysis, I could have done more with the region-specific data files. The variables I was unable to include because of the scope of the analysis versus my time and abilities, were harvest numbers, region specific populations, and individual animal trends. Having the comparison between harvest numbers and overall endangered or threatened animals over time would add really valuable insights to the data.

Some of the challenges I faced included date time formatting and indexing, and also interpreting regression results. I did a lot of research and tried different approaches to formatting the date column correctly for certain parts of the analysis. It was definitely trial and error and a good learning experience. Making sense of my analytical distribution results and regression results was also a challenge. Overall, the increasing numbers over time are sad to visualize, yet important for spreading awareness and encouraging action.

References:

Flather, C. H., Knowles, M. S., Jones, M. F., Schilli, C. J. (2014). Wildlife population and harvest data for Forest Service 2010 RPA Assessment. Fort Collins, CO: Forest Service Research Data Archive. <https://doi.org/10.2737/RDS-2014-0009>