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Final Project Summary

In this project, a dataset about wolf populations in Denali National Park in Alaska was downloaded from data.gov. The data was in a csv file and was pulled into python/jupyter notebooks using the pandas package. Other python packages used in this project include matplotlib and seaborn. The data was then cleaned and then turned into plots to answer the questions asked. The questions were, Has there been an increase or decrease in wolf counts over the course of the years? Is there a correlation between the number of wolf packs monitored and the area? What year had the highest number of packs monitored in the spring? How about fall? What is the most common distribution of wolf counts in the spring, is there a difference in the fall?

After analyzing the plots, it appears that the wolf populations have fluctuated over the years including a sharp rise from 1986 to 1991 and the population has been in decline since 2021. Neither the spring nor the fall have a correlation for the amount of wolf packs counted with the amount of area studied. 2008 had the highest amount of wolf packs in the spring and 2007 had the highest amount of wolf packs in the fall. Lastly, Spring had the highest number of years in the 70-80 range while fall had the highest number of years in the 70-90 range. They are similar, but the fall had some years of higher totals of wolves compared to the spring.

I would recommend more data studies to be done as to why the wolf population fluctuates in the park. In the future, data on things like prey and water availability, climate, disease, and hunting should be obtained and compared to this population data to investigate why fluctuations in individual wolf and pack populations occur. These comparisons could be valuable in conservation efforts to help protect the wolf populations in Denali National Park.