

## **Spread of Chronic Wasting Disease in Kansas**

Chronic wasting disease (CWD) is a degenerative disease that affects deer in large proportions throughout the world. The disease propagates through an area slowly, but is very difficult to eradicate once it reaches an area. CWD was found recently in Kansas. According to the Kansas Department of Wildlife, Parks, and Tourism there have been roughly 100 cases of CWD in the Northwest section of the state with more recent cases progressing further east (Tourism, Kansas Department of Wildlife, Parks and, 2017). In this research experience I proposed to forecast the spread of CWD as it moves eastward into the areas of Kansas that have a higher density of deer. CWD could seriously negatively impact the hunting economy in Kansas if the proportion of affected deer becomes large enough. It has been estimated that hunter losses have reached approximately \$60 million across the country (Bishop 2010).

One of the major issues when performing a statistical analysis is organizing the data into a usable format. Because of that studying the R programming language and the associated tidyverse became an important focal point of the research process. Similarly finding solutions to location error in a consistent and precise way. I plan to continue this research project to completion throughout the summer months learning more about Monte Carlo simulations and their use in forecasting.

## Works Cited

Richard C. Bishop (2010) The Economic Impacts of Chronic Wasting Disease (CWD) in Wisconsin, *Human Dimensions of Wildlife*, 9:3, 181-192, DOI: [10.1080/10871200490479963](https://doi.org/10.1080/10871200490479963)

## References

Tourism, Kansas Department of Wildlife, Parks and. (2017). Chronic wasting disease. Retrieved from <http://ksoutdoors.com/Hunting/Big-Game-Information/Chronic-Wasting-Disease>