# Variation in male greater sage grouse abundance at lek sites in Grasslands National Park

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#### Abstract

Grasslands National Park in southern Saskatchewan has a population of greater sage grouse. Each spring, the male greater sage grouse congregate in groups at known locations to lek. These lek sites were monitored from 2007-2020 and the abundance of male birds was counted at each site. I am graphically illustrating the abundance trends over the years for each lek site.

## 0.1 Introduction:

Male greater sage grouse congregate during the breeding season to lek (Knick, Hanser, and Preston 2013).

#### 0.2 Methods:

Grasslands National Park staff observed lek sites during the breeding season from 2005-2020. The maximum number of male birds at a lek site at one time was termed peak male attendance and this was recorded for each lek site. Using the ggplot2 package in R, I am graphically representing the variation in abundance between lek sites over the 15 years of observations.

### 0.3 Results:

#### 0.4 Discussion:

### References:

Knick, Steven T., Steven E. Hanser, and Kristine L. Preston. 2013. "Modeling Ecological Minimum Requirements for Distribution of Greater Sage-Grouse Leks: Implications for Population Connectivity Across Their Western Range, u.s.a." *Ecology and Evolution* 3 (6): 1539–51. https://doi.org/https://doi.org/10.1002/ece3.557.