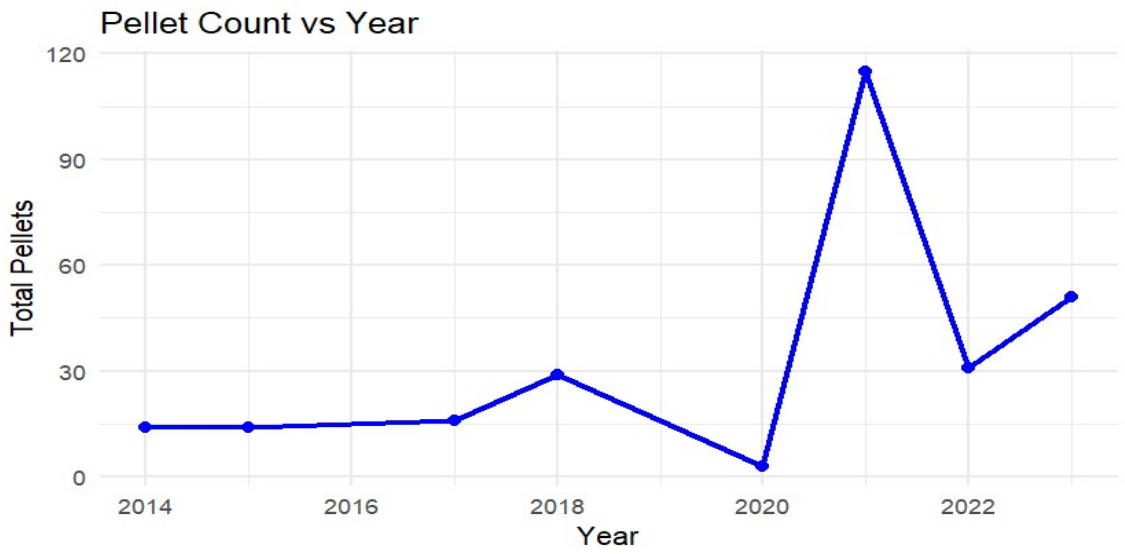
Abstract

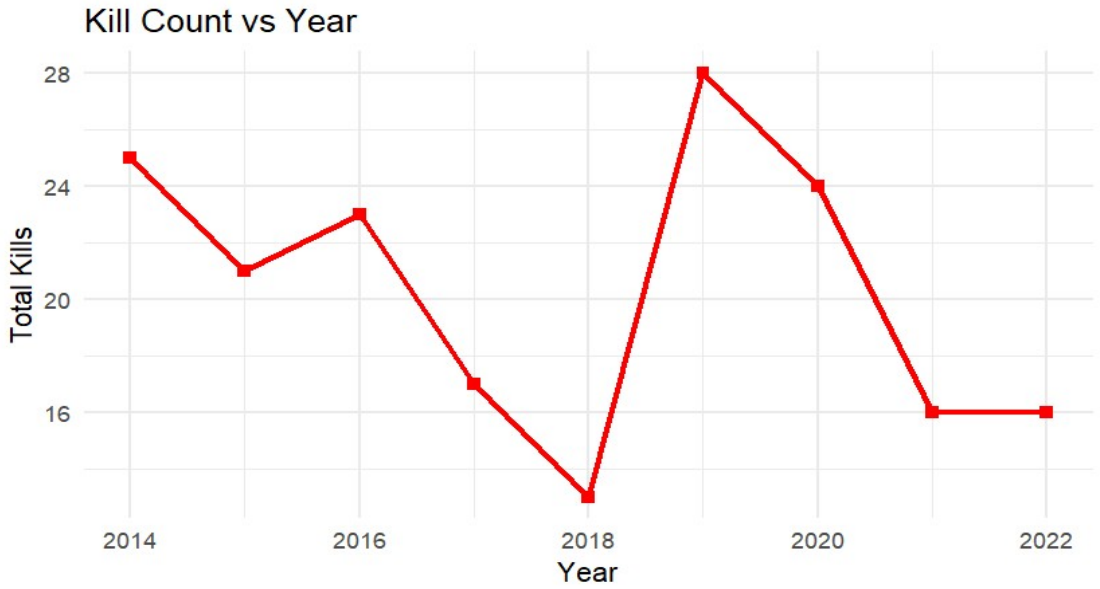
This study explores the relationship between deer pellet counts and harvest (kill) data from 2014 to 2022 in the Black River Falls (BRF) region. Pellet counts serve as a non-invasive proxy for deer presence, while harvest records reflect actual removals. We analyzed annual trends using line plots and Pearson correlation to assess associations. A moderate negative correlation (r = -0.47) was found, suggesting that pellet counts may not reliably predict harvest outcomes. These findings highlight the complexity of interpreting ecological indicators and the need for integrative monitoring approaches.

Figure 1. Pellet Count vs Year (2014–2022)



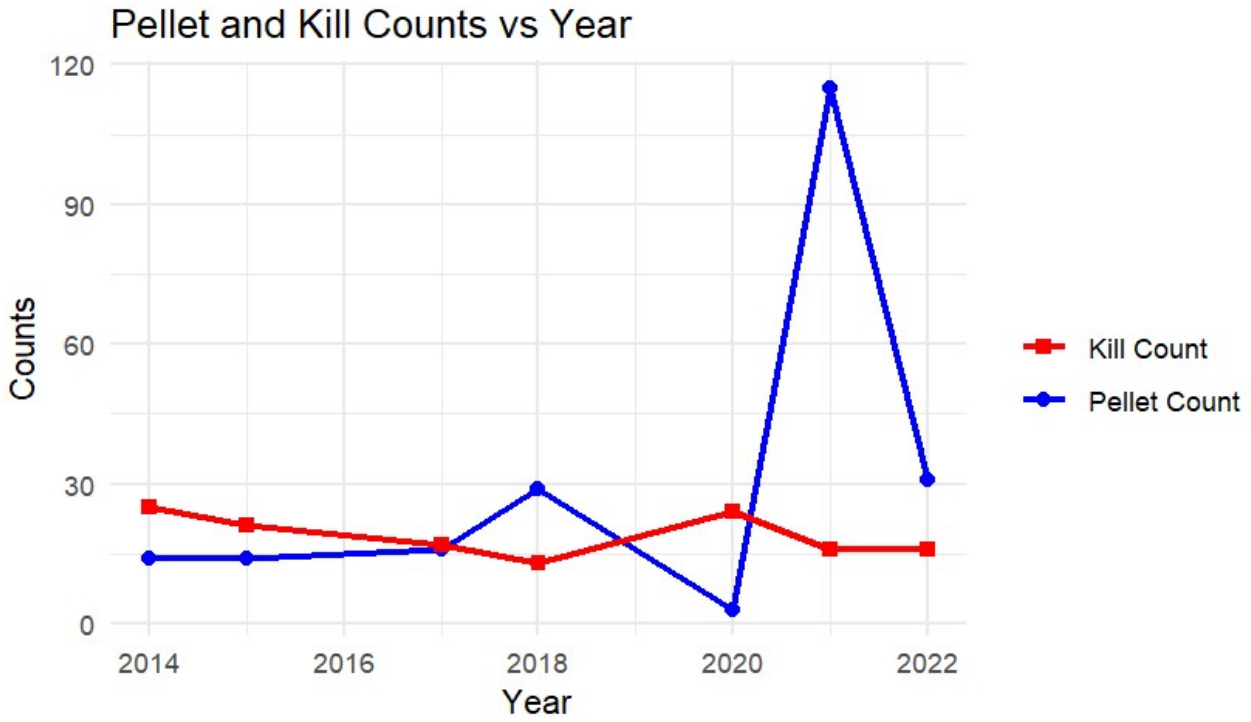
Pellet counts varied across years with a notable increase in 2021 (115), suggesting higher deer activity or improved observation conditions. A sharp drop in 2020 may reflect survey inconsistencies.

Figure 2. Kill Count vs Year (2014–2022)



Kill counts declined from 2014 to 2018, then rebounded by 2020 and stabilized in 2021–2022, showing no direct alignment with pellet trends.

Figure 3. Combined Pellet and Kill Counts vs Year



This figure visually compares pellet and kill trends. In 2021, pellet count spiked but kill count remained flat, highlighting a disconnect between observed deer presence and actual harvest outcomes. Note: A scatter plot showing the correlation between pellet and kill counts (Figure 4) will be included in the final report submission.