

Research Background Information

Throughout the news this past summer we see large uncontrolled fires blazing throughout National Forests in the United States or other countries such as Australia. However, there is another fire- the prescribed burn. This is a controlled fire that is used to meet management objectives.



How Does Prescribed Burning Help Wildlife?

- Prescribed burning is a key management tool to maintain habitat for wildlife.
- Fire can create a mosaic of habitats that will benefit plants and animals.
- One of the most common ecosystems to the Midwest that is now endangered (Oak Savannas) depends on fire.
- Historically, oak savannas provided a prime habitat for important game species and smaller mammals.
- Endangered animals such as the Karner Blue Butterfly and Red-headed Woodpecker live in the oak savannas and depend on them to survive.
- Reducing fuels will prevent the large uncontrolled fires.



Objective

The objective of this study is to show that small mammal diversity and abundance is greater at ecosystems that has habitat maintained by prescribed burning rather than non-treated.

The Influence of Prescribed Burning on Small Mammal Diversity

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Field Monitoring

Study Area

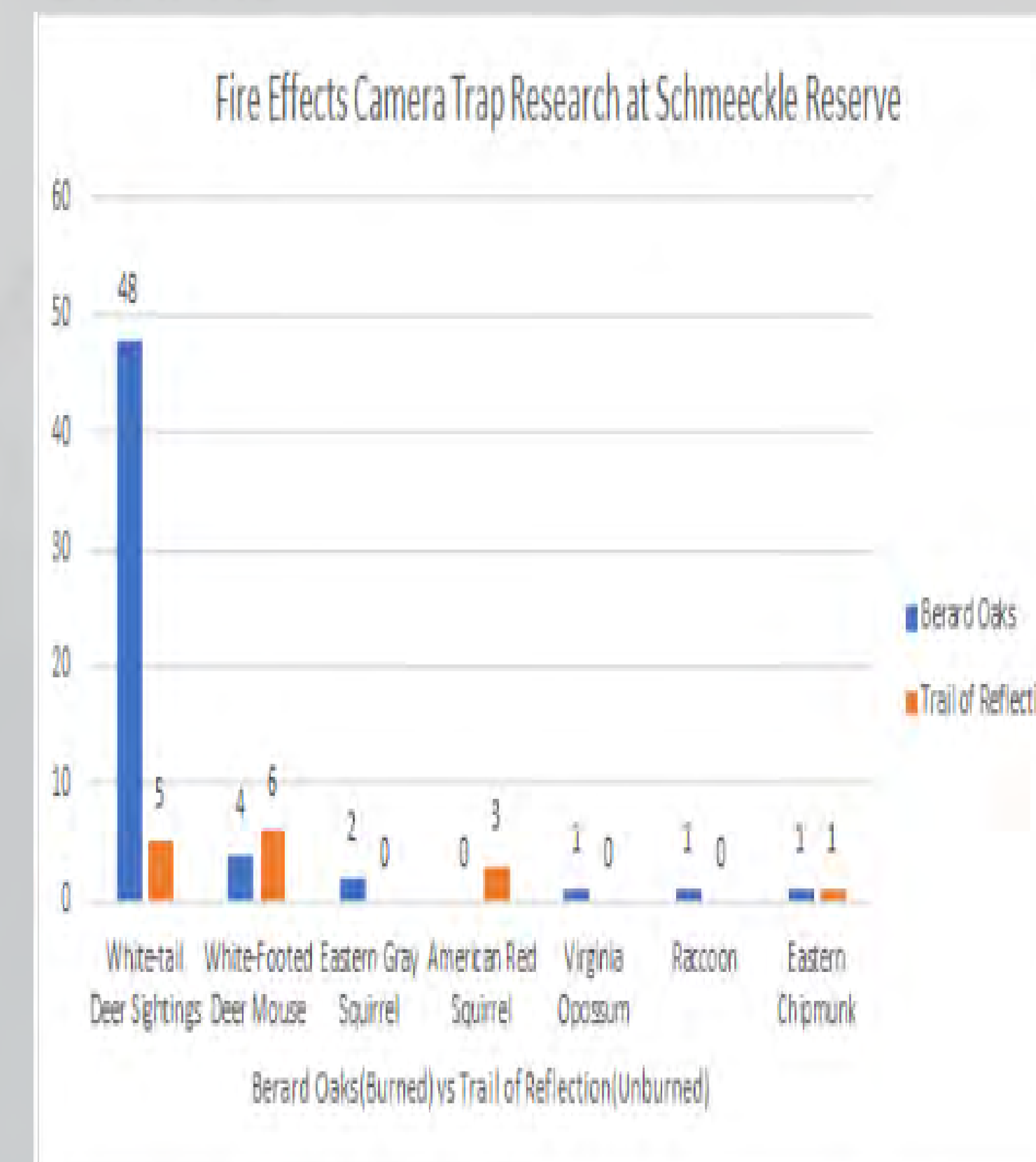
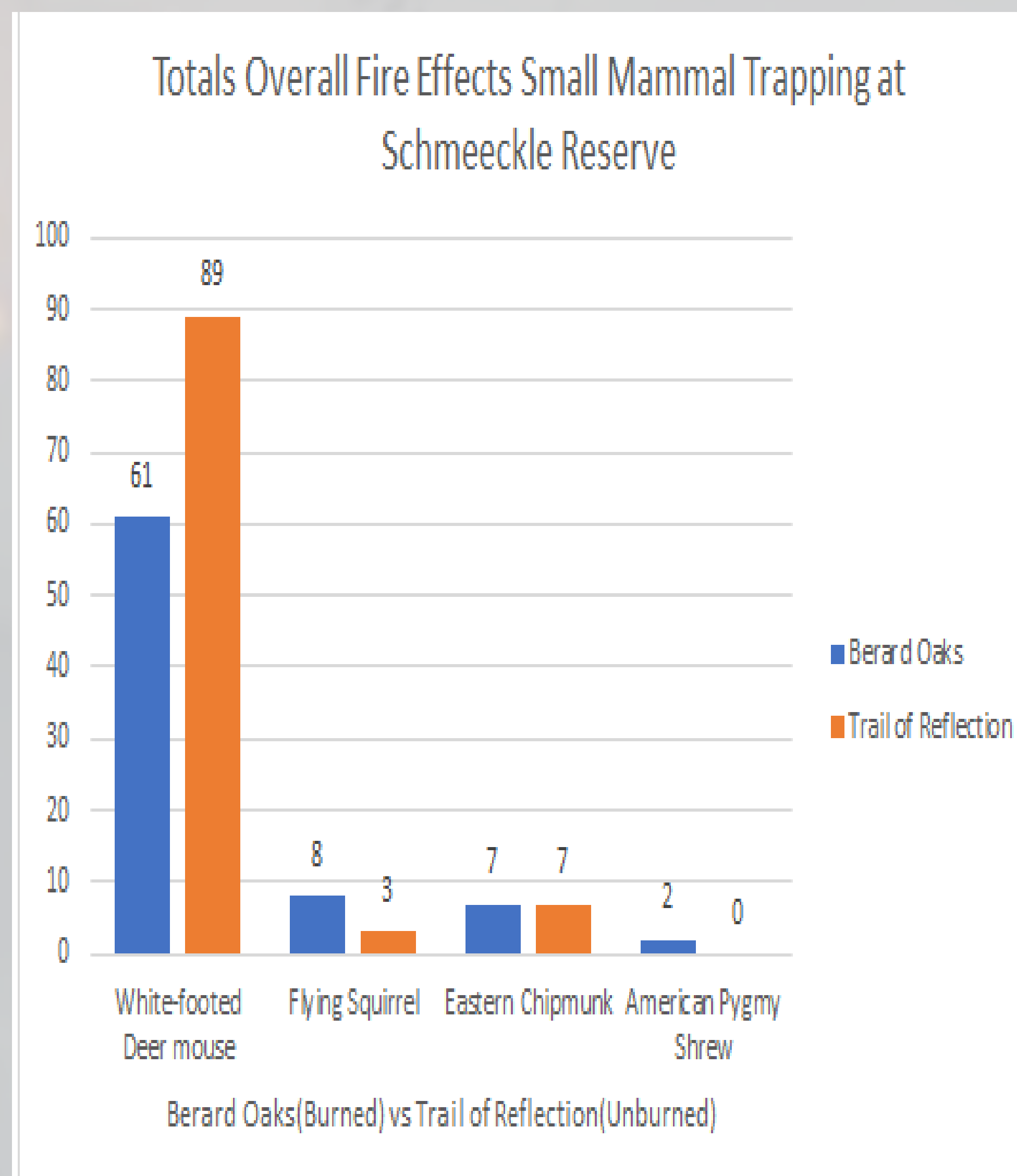
Schmeckle Reserve is a 280-acre conservancy area on the campus of UW-Stevens Point. Berard Oaks is a restored oak savanna habitat that is being restored and expanded with help of prescribed burning. The Trail of Reflection is the ½ mile trail within the UWSP property as well.

Methods

- Set up a 5x5 grid at Berard Oaks and Trail of Reflection location areas in September.
- Bait and check traps at 6am and 6pm everyday throughout the week till November.
- Record abundance, diversity, and weight of small mammals September-November.
- December set up camera traps at the two areas to record without capture.



GRAPHS



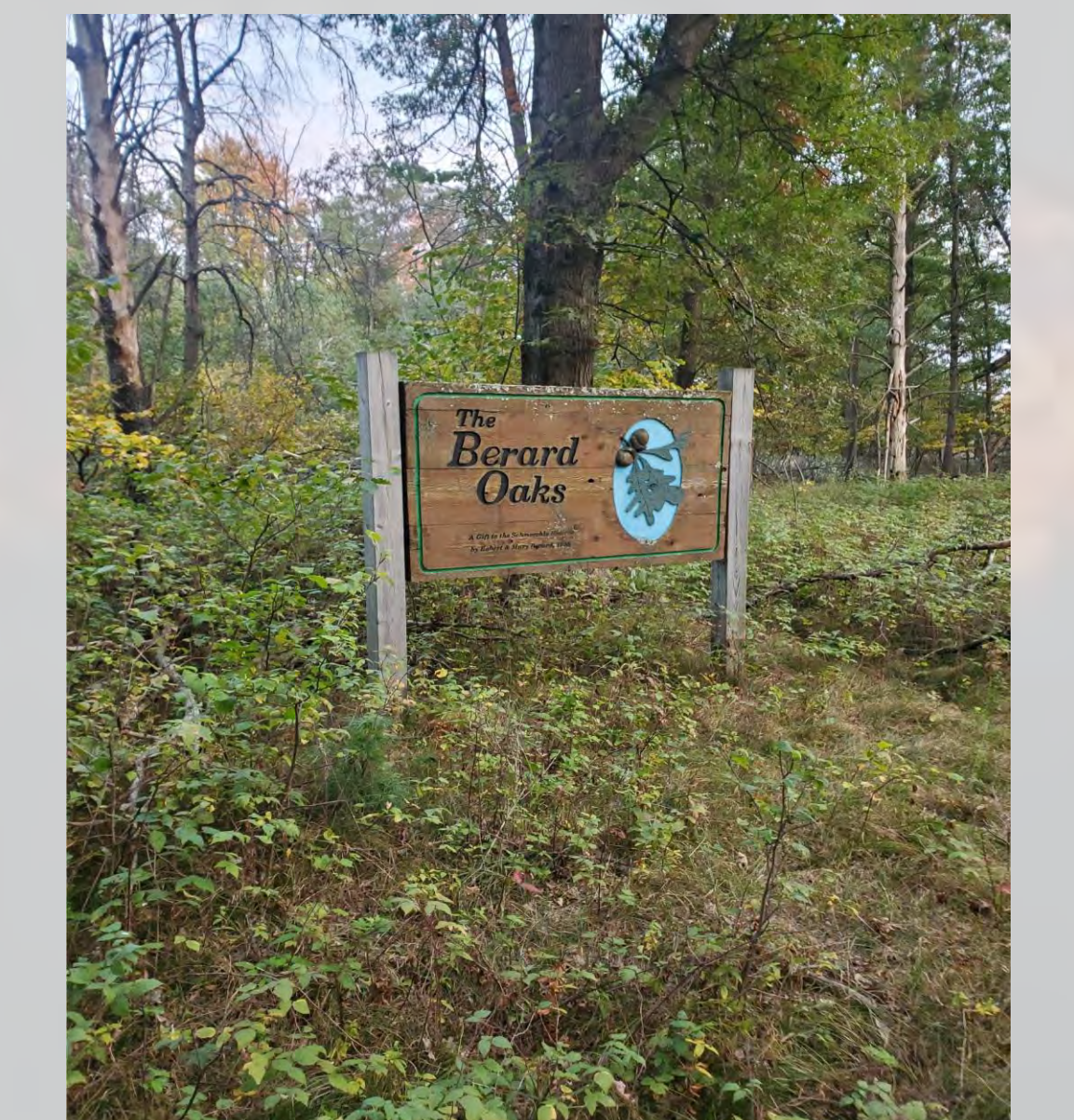
Data and Results

- Excel was used to insert data records of the captures for each day between September to November.
- Berard Oaks had a total of 78 animals trapped, 57 animals caught on camera or seen, and a total of 10 species with 135 overall.
- Trail of Reflection had a total of 99 animals trapped, 12 animals caught on camera or seen, and a total of 7 species with 111 overall.
- Berard Oaks had a very diverse and abundant population for most of the species seen. Flying Squirrels and Eastern Chipmunks thrived.
- There is a very large population of white-tailed deer in Berard Oaks and also an overpopulated amount of white-footed mice along the Trail of Reflection.
- Results show that the influence of prescribed burning has a positive effect on small mammal diversity and abundance.



Future Research

- Continue the Fire Effects Small Mammal Trapping Research Project at Schmeckle Reserve to get yearly data.
- Implement plan for Oak Savanna Restoration and prescribed burning of Schmeckle Reserve.
- UWSP Fire Crew and UWSP TWS collaboration of new research with the small mammal project.



Acknowledgements

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