

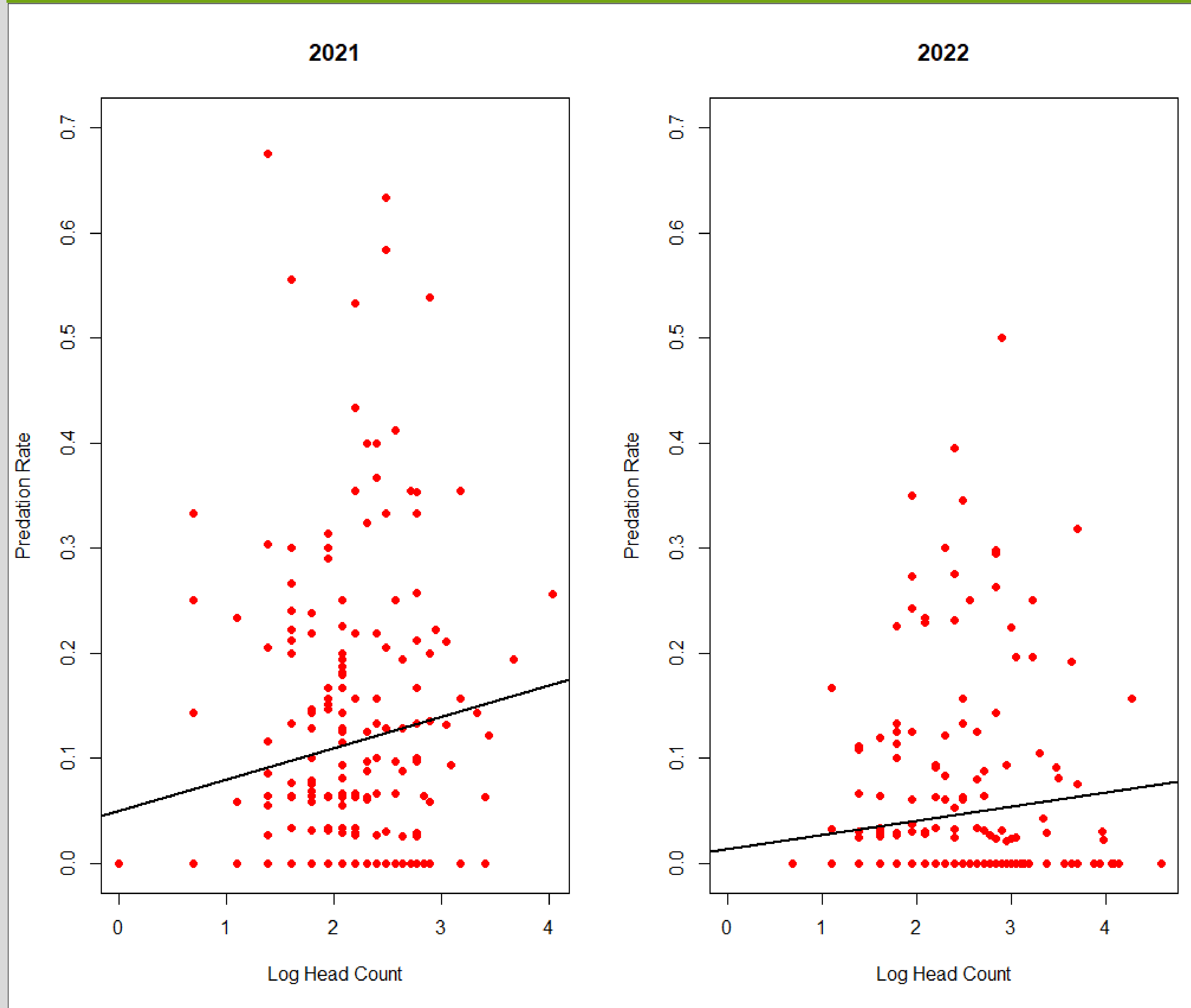
Introduction

- *Liatris aspera*, the Rough Blazing Star, is a prairie plant vulnerable to predation by moths.
- *Liatris* plant fecundity depends on the number of fruits (achenes) the plant produces, and predation hinders fecundity.
- The achenes are found on the plant's multiple heads. Head count varies per *Liatris* plant.
- Plants with more heads have more achenes, but would that come at the cost of attracting more predators?
- The goal of this study was to determine if the number of heads a *Liatris* plant has impacts the predation rate by moths.
- We predict that predation will increase with head count because more heads will lead to more achenes, providing more food for predators to eat from a single plant.

Methods

- Plants were collected during the summers of 2021 and 2022 in the prairie remnants of Western MN.
- Sample size was 234 for 2021 and 240 for 2022.
- Counted the number of heads for each *Liatris aspera* plant collected.
- Removed all the achenes from each plant after counting heads.
- Randomly selected 30 to 40 of the removed achenes from each plant to be inspected for predation. We identify predation via holes.

Predation tends to increase with head count



Discussion

- Plants in 2021 saw a higher predation rate (11.1%) on average than 2022 (4.45%).
- There is weak evidence that head count effected predation in 2021 ($p=0.051$), but there is less evidence for 2022 ($p=0.094$).
- Confounding variables such as soil richness, fire frequency, and rainfall amounts may have affected our findings.
- Investigating these confounding variables could help give us a better understanding of what factors impact *Liatris aspera* fecundity.

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References

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