INTRODUCTION

Background: Eastern Red Cedar (ERC), while native to the eastern US has expanded its range in the past 50 years across the Great Plains and southward into Florida. ERC also alters ecosystems by moving from temperate forests to grassland and prairie ecosystems where they form dense monocultures. ERC encroachment is highly influenced by bird and mammal mediated dispersal. Dispersal: Seeds are typically consumed during winter, when other resources are scarce. The seed’s fleshy outer covering is digested, and the seed is then passed in feces. Thus, seed dispersal is driven by how fast their digestive system processes the food and their potential dispersal distance. Based upon foraging and movement patterns, birds and mammals can be placed in functional feeding groups.

Foraging Observations October 1st - November 15th

Kamama Foraging Observations October 1st - November 15th

Table 1: This table shows examples of foraging events that have been observed at Kamama prairie. The observations are from 3 different cameras.

EXPECTED RESULTS

Preliminary Results: We have started to analyze camera data from the Kamama Prairie site. We have observed the mammals and birds listed in table 1 but have not observed any avian species removing berries from the trees. The foraging events have been evenly distributed throughout the day and night.

Expected Results: As we continue to comb through the data for this study, we expect to see mammals using the trees consistently over time and avian species to use the berries episodically as migration occurs throughout the year. We believe that the migratory and nomadic species will have a greater contribution to the long-distance dispersal of the ERC while resident species will contribute to short-distance dispersal.

If the methodology of the ERC seed dispersal, it is possible to control the encroachment of this species.

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