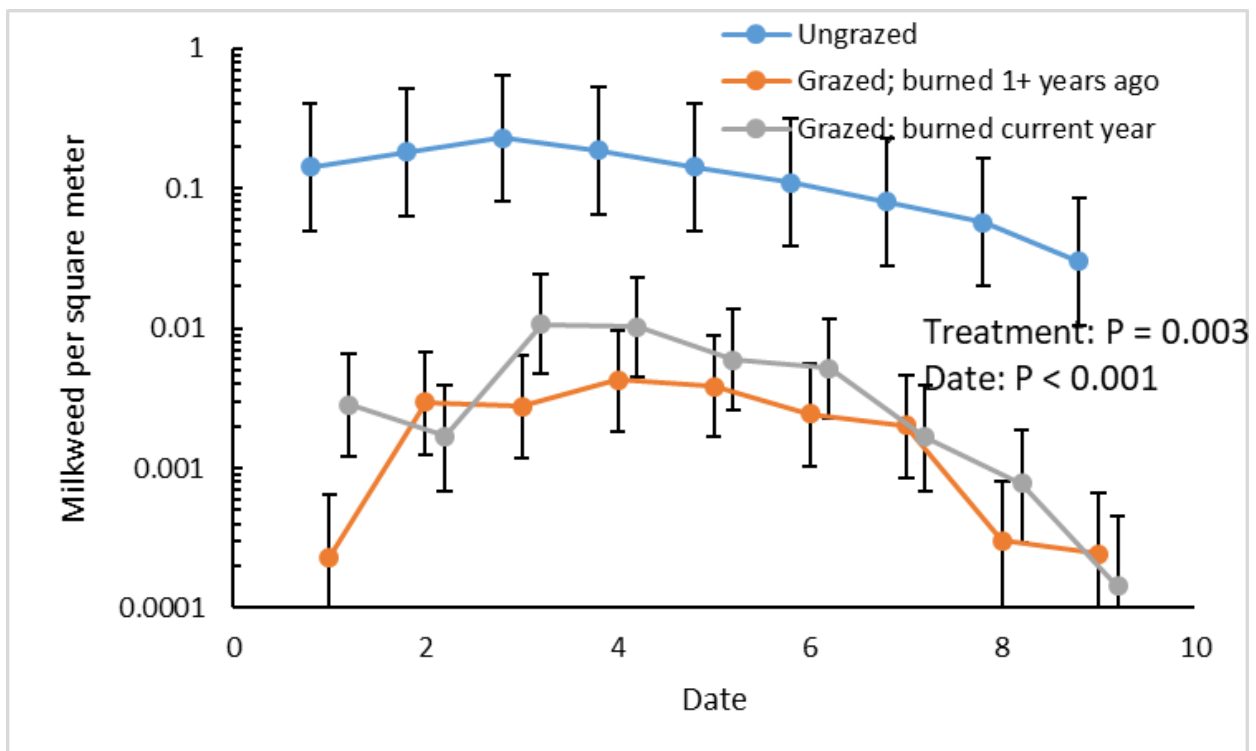


“Effects of Rangeland Management on Milkweed Grazing and Monarch Conservation”
Summary

Brittany Poynor

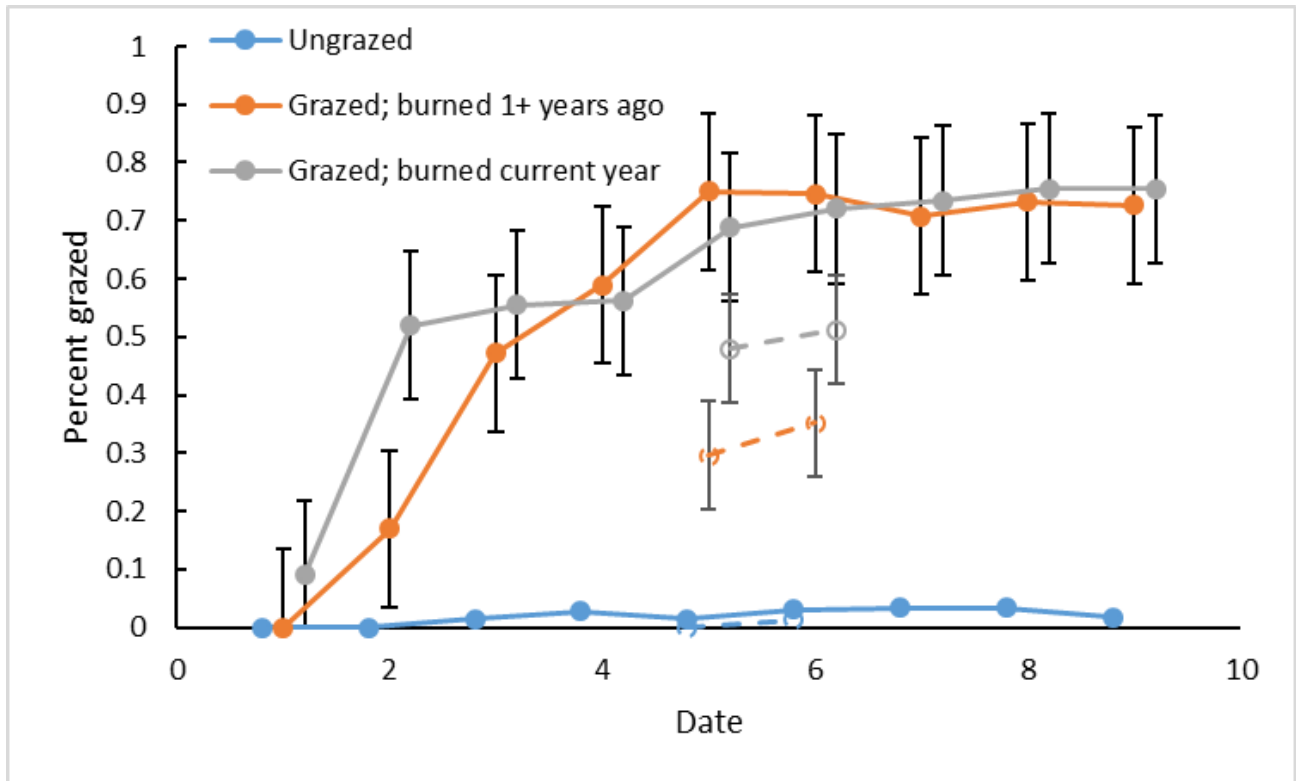
At the moment, we are going over the statistics and finding them a little more intensive than we originally thought, however I do have some preliminary results at this time. I only call them preliminary because there is a chance that we take a further look into how to statistically analyze the data, however we (my advisor and I) do not think this will really change the results anyways.

Ungrazed sites had a significantly higher milkweed density throughout the grazing season as compared to all grazed areas. Within grazed areas of cattle choice both that were burned this year or burned two or more years ago. When comparing the areas burned in previous years and burned in the current year where cattle choice was present, there was not a significant difference in milkweed density. This was unexpected as areas burned in previous years tend to be left to rest by the cattle as they want fresh new growth to eat. Despite there not being a difference in milkweed density between previously burned years and areas burned in the current year, there was still a difference in the amount of big bluestem that was grazed. This means that there was less grazing in the previously burned years, but milkweed stems were sought after in those areas, and thus not left to rest as I had expected.



This figure shows the milkweed density per square meter in my three grazing treatments, ungrazed, burned in the current year and grazed, and burned in previous years and grazed. There is no significant difference in the number of milkweed found in both of the treatments that had cattle grazing, however the milkweed density is significantly lower in those grazing treatments than in the ungrazed study sites.

As expected, ungrazed sites had a significantly lower amount of grazing on both common/showy milkweed species and on big bluestem grass. In areas with cattle choice, there was no significant difference in the number of common/showy milkweed grazed, however there was a difference in the number of big bluestem grass grazed. There was the same amount of common/showy milkweed grazed in both areas, with less big bluestem grass grazed in the burned in previous years. This means that cattle are not avoiding common/showy milkweed and may even be intentionally seeking it out in areas where they are eating less big bluestem grass.



This figure shows the percent of individual common/showy milkweed stems grazed that I followed during the grazing season. The dashed lines show the percent of Big Bluestem grazed in the burned in the current year treatment and burned previously across two visits. Although there is no significant difference in the milkweed grazed, there is a difference between sites when averaging the two Big Bluestem percent grazed counts, with there being less Big Bluestem grazed in previous years, while the same amount of milkweed is grazed.