

Friends of Nachusa Grasslands Scientific Research Grant Status Report – Erin Rowland

Due to the Coronavirus pandemic, parts of my research work have had to be postponed over the past year. However, the pandemic also provided the opportunity to focus on different aspects of the project in the absence of a field season. Because of the pandemic, I was unable to conduct my planned drone work this spring and summer. This work has been rescheduled to begin in the spring of 2021.

Additionally, the pandemic has resulted in a gap in our long-term mammal surveying dataset. However, in the place of conducting drone analysis, I have begun some enhanced analysis of historical burns in order to increase our understanding of the impact of prescribed fire on small mammal communities.

This analysis examines the amount of burned land within a set of distance buffers from each of our trapping sites to consider how populations are impacted not just by prescribed fire on the trapping grid, but also from fire on nearby land. The amount of burned land near each trapping site is then compared to the number of captures at that site. In order to begin this work, I spent time digitizing historical fire records in a uniform and adaptable format that is available to stewards and researchers at Nachusa.

I still fully anticipate completing the drone work outlined in my initial research proposal. I have shifted my timeline to still complete at least three years of drone imagery following the fire season, just beginning one year later. By the end of my grant period, I will have two years of prescribed fire imagery, as well as imagery to conduct the land cover classification outlined in my proposal. While we did lose a year of small mammal trapping data, our lab is fortunate to have seven years of data to work with, and we intend to resume trapping in the spring if it is safe to do so.

The scope of my work has expanded slightly in the wake of this unconventional field season. In addition to the work I proposed in my grant application, I have added some additional geospatial analysis that I believe will enhance the quality of the results. Though the field season was not what I intended, I

believe that I have made significant progress this year and that the work I have completed will support the work I intent to complete in the future.