Effectiveness of Prescribed Fire on Meeting Fuel Load Management Objectives on Federal Lands in Eastern Texas

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Introduction

- Prescribed fire reduces the risk of catastrophic wildfires.
- Fire is an integral natural disturbance in southeastern forested ecosystems.
- Fuel reduction objectives can be met with the supplementation of prescribed fire.
- When fires are removed excessive fuel loads and increased competition provide opportunities for insects and disease.
- Prescribed burning benefits society by proactively increasing safety while simultaneously supporting native grasses and forbs.

Goals and Objectives

Goals:
Analyze and compare vegetative effects of prescribed fire implementation among public agencies across East Texas.
Objectives:
- Record habitat and vegetation data pre and post-burn on Texas National Forest and The Nature Conservancy properties.
- Compare and contrast different burn regimes used and their effectiveness in meeting goals set by each individual agency.

Timeline

Summer 2020:
- Data collection at study sites in East Texas.

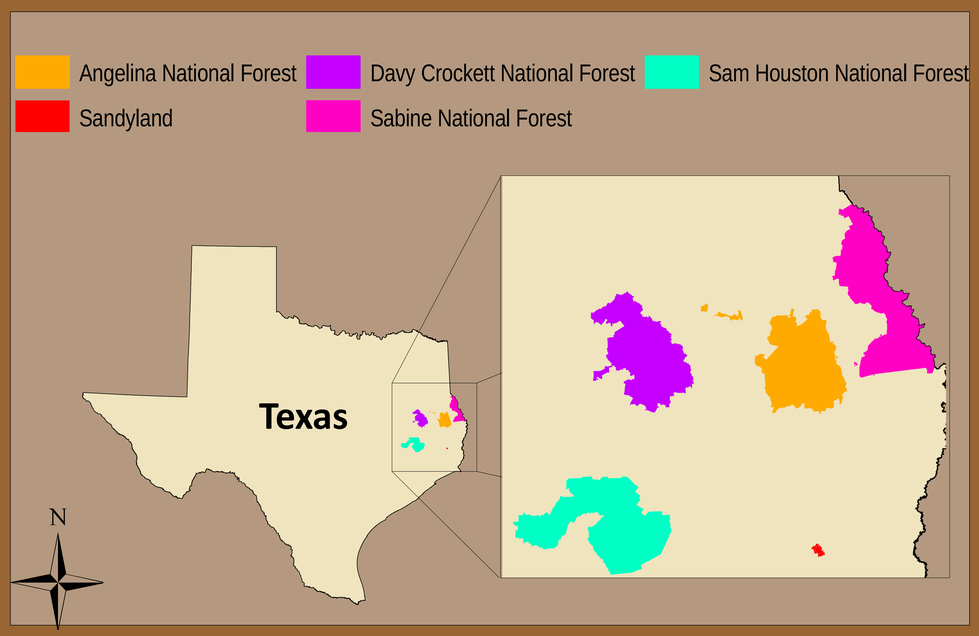
Fall 2020:
- Analysis of collected data.

Spring 2021:
- Complete and defend thesis.

Materials and Methods

- Herbaceous understory cover, downed woody debris, duff, and fuels will be measured along 3 transect lines.
- Duff, litter, and herbaceous cover depth will be measured & collected to determine moisture content.
- Mid and overstory trees greater than 2” in diameter will be recorded by species and mapped using a plot grid.
- Aerial cover class for herbaceous cover, litter, vines, and woody plants will be recorded.

Study Area



Pictures

Acknowledgements

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9,000 ft^2 Circular Plot Design