CANOPIES VS CLEARINGS: INVESTIGATING MICROCLIMATES AND VEGETATION HEALTH THROUGHOUT THE DAY Audrey Haffner, Emma Taylor, Julia Vasquez, and Sloan Malleck | Faculty Advisor: Brendan L. Lavy PhD Department of Environmental Sciences, TCU, Fort Worth, TX

Introduction

Microclimates, which refer to the localized atmospheric conditions within small-scale environments, can be influenced by a variety of factors such as vegetation, topography, and human activity. One of the key elements that affect microclimates is the type of canopy cover present in an area. Open areas, where there is little vegetation and more exposure to the elements, often experience different conditions compared to areas with dense canopy cover, where the vegetation provides more shelter and shade. Understanding the differences in microclimatic conditions between these two types of environments helps us understand how these environmental conditions affect people, plants, and animals. The purpose of this study is to explore how microclimates vary between open areas and areas with closed canopy cover, focusing on factors such as temperature, humidity, and NDVI to better understand how canopy cover influences environmental conditions.

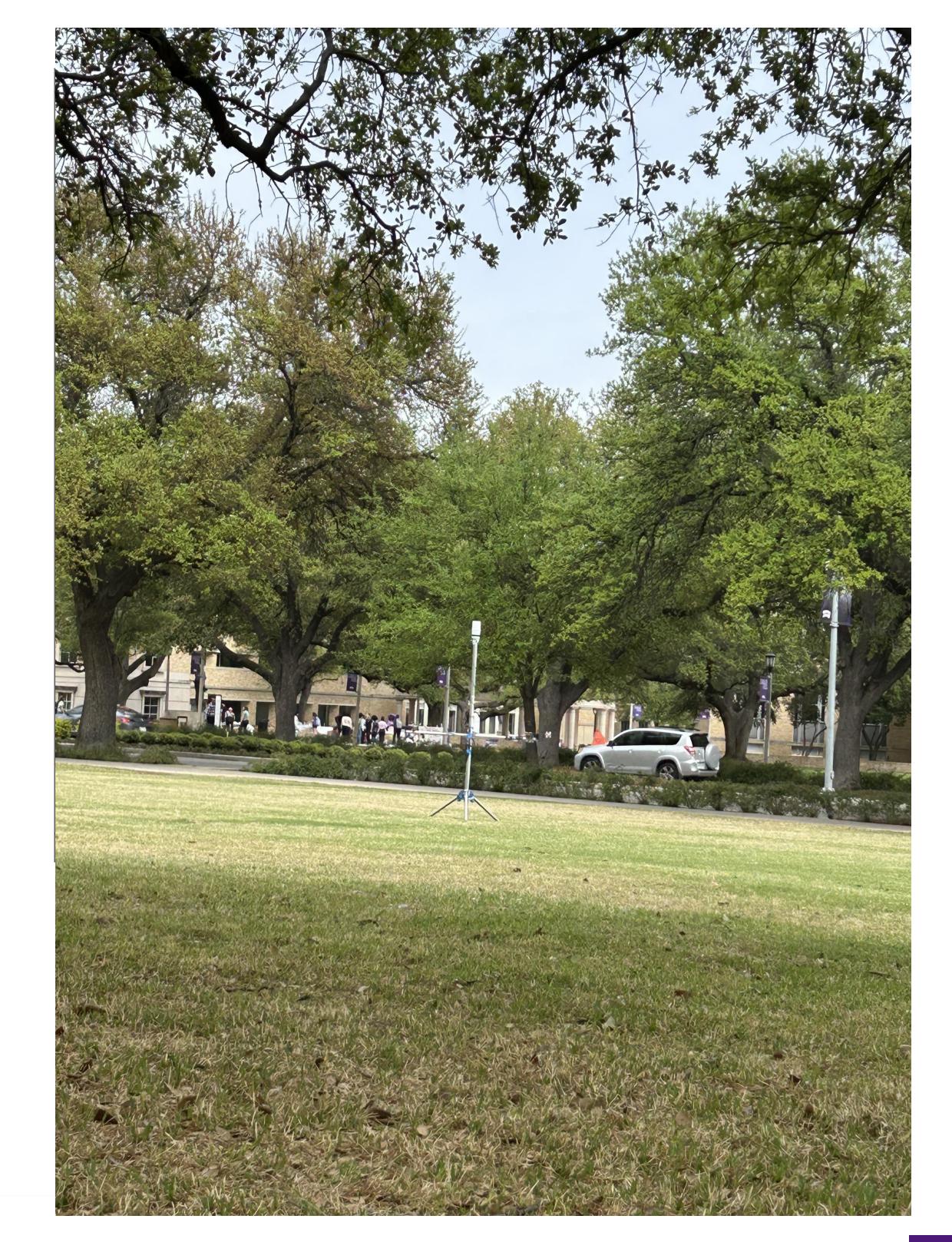
Research Question

How do tree-covered areas and open grassy areas differ in terms of microclimate conditions (temperature, humidity, wind, and radiation) and vegetation health (NDVI) at different times of the day?

Methods







Discussion and Conclusions

References