Title: The Benefits of Urban Forests in Tennessee

Urban forests provide a wide range of benefits including sequestering carbon and reducing greenhouse gas emissions, reducing urban heat islands, removing air pollutants, increasing biodiversity, and increasing property values in communities. However, little is known about the benefits of urban forests in Tennessee. To fill in the information gap, we conducted a literature review to examine the documented benefits of urban forests such as climate change, air pollutant removal, and mitigating urban temperatures in the state of Tennessee. The peer-reviewed journal articles were searched with JTSOR, EBSCO, the Journal of Forestry, ELSEVIER databases, and Google Scholar using 16 keywords related to urban forest benefits. Through the 22 articles found we concluded that urban forests play an important role in the removal of pollutants from the atmosphere, sequestering carbon, reducing urban heat islands, and increasing biodiversity in Tennessee. For example, trees help to reduce heat stress by shading people from oncoming radiation, yet areas with greater tree cover are associated with greater humidity. In general, the majority of articles focused on the city of Knoxville, Lakeland (a small town), Tennessee's urban neighborhoods, and downtown areas. However, the existing studies are mainly related to the urban forests in Knoxville. As a result, more information is needed for other cities like Nashville or Memphis in the state. A study from Lakeland showed that tree canopy cover on the single-family housing lot was not a significant contributor to property values. However, tree canopy cover surrounding the lot was associated with 0.12%, 0.17%, and 0.21% increases in home sale prices. Additionally, South Knoxville was involved in a study that looked at how environmental amenities such as urban forests affect the socioeconomic factors in this community. It was concluded that adding urban forests to lower-income areas does not show strong evidence of gentrification. These findings can be applied in future urban planning, urban forestry programs, and education by strategically increasing tree cover in cities. In future studies, areas need to be further studied including how urban forestry benefits community wellness and factors outside of environmental improvements such as social justice, climate change, and public health.