The purpose of this study is to determine the trends in composition and structure of the Kennesaw State University (KSU) Arboretum, located on the Kennesaw Campus. To assess the trends, we identified the tree species, and measured the diameter (dbh) and locations of all stems including new growths (i.e. greater than 1 cm dbh) in the permanent plot during the summer of 2014. Density, dominance, and frequency values were calculated and all trees were plotted from data collected in 2008, 2010, and 2014. Findings show that there have been an increase in Fagus grandifolia (beech), a significant decline in Cornus florida (flowering dogwood) and marked differences in the understory species compared to those dominating the canopy layer. As a small urban forest remnant, the trees located in the plot show a community transition from a pine/oak stand to one dominated by shade-tolerant mesophytic species.

**METHODOLOGY**
- Field Studies performed in Summer 2014 with re-checks in early 2015
- Where possible, stakes at each plot hub were identified and marked. Field tape was laid along boundary lines in a south/west direction in accordance with the X/Y axis of the tract
- DBH (diameter at breast height) is usually measured at 4.5 ft (1.3 m) above ground level
- The current database of the Arboretum tree species validated to remove errors rectified in field, update field season data, and to determine indices
- Geo-referenced database of data created
- Statistical analyses of data performed
- Maps of data using GIS and related methodologies including: reference tree map (location), composition map, structure map, specialized species maps

**FINDINGS**
- Importance Value: Relative frequency + Relative Density + Relative Basal Area for each species. (The maximum importance value for any one species is 300 (100 + 100 + 100).

The KSU Arboretum is typical of a small urban forest found in the Southern Appalachian region. The results of eight years of studies supports the findings that a transect from a pine/oak stand to one dominated by shade-tolerant species is taking place within the Arboretum. A substantial increase in Fagus grandifolia (beech), along with a significant decline in Cornus florida (flowering dogwood) and marked differences in the understory species compared to those dominating the canopy layer are demonstrated. This small urban forest remnant will most likely continue this trend commonly found in this type of tract, especially with the lack of natural disturbances (e.g. fire) for oak/hickory and pine dominated forests.

**CONCLUSION**

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