

ABSTRACT

The relationship between culture and urban forests is explored by analyzing residential urban trees within the privately owned residential lots of City of West Covina residents in Los Angeles County, CA. Because the largest percentage of Hispanic immigrants in Los Angeles have historically come from rural, often agriculturally fertile areas in Mexico, urban forest structure was studied to identify possible differences in the management practices of privately owned residential trees in Hispanic neighborhoods; looking for the possibility of increased private urban agriculture. The second largest minority group in the city, Asians, were incorporated into the analysis as the second largest minority group and to compare two sets of results. Object-based image analysis was applied to extract urban forest structure data and OLS regression was employed to explore these relationships. When controlling for several factors like parcel size, property values, and income levels, a statistically significant relationship at the 90% confidence level was found between Hispanic and/or Asian populations and all three dependent variables describing urban forest structure. An inverse relationship between higher tree densities and the height of trees and Hispanic populations was found, however, the coefficients were small. Asian populations were found to have positive associations between all forest structure metrics: a statistically significant and positive relationship was found between large Asian populations, tree density, tree height and urban tree canopy cover. Although results showed some connection between culture and urban forest structure variables, further research and additional methods are needed to explore the validity, strength and complexity of any relationships found.