

# Ellis Smith, Secondary Education

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## Assessment of vegetation units within Columbia park and wildlife areas

*Ellis Smith and Charles Nilon*

The management of park and wildlife areas is an important aspect of city management. Parks and nature areas are used for numerous purposes; recreation, community events, and exercise are but a few. These areas may also serve as habitats to a diverse number of species. When managing these areas, it is important that city planners have knowledge of the different habitat types present in the wildlife areas. With this knowledge planners can determine what habitat types are rare and therefore in need of preservation. Entitation is a procedure used to classify and distinguish vegetation units based on physical characteristics such as tree density, height, and type. The purpose of the project was to begin compiling a database of the habitat types present in parks and wildlife areas within Columbia, MO. The study was conducted at eight different nature or park areas within the Columbia city limits. Procedures used at each site include (1) recording relevant field conditions such as temperature and precipitation, (2) using aerial photos to map and recognize separate vegetation units using an entitation guide developed by Garry F. Rogers and Rowan A. Rowntree in a 1987 study, and (3) establishing the collected data on classification data sheets. After all eight sites were classified and mapped in the field, the information was digitized using the ARC GIS system. In all fourteen distinct vegetation types were observed at the eight different sites. The most abundant type was classified as a closed deciduous forest with temperate lowland conditions, which simply describes a region not located on an elevated topography with no stream present. Out of the 46 different units recorded 16 were classified as such. The next most abundant type with six units was a grassland type; a mowed lawn.