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Vegetation classification in urban nature areas in Columbia, Missouri

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Urban nature areas are often identified by local governments with no thought to their ecological characteristics or conservation value. We used a vegetation classification procedure, entitation, to classify vegetation types in nine nature areas identified by the Columbia, MO Parks and Recreation Department. The objective of the project was to identify the frequency, rarity, and size of the different vegetation types present within these nature areas. Entitation is a procedure used to classify and distinguish vegetation units based on physical characteristics of dominant vegetation. We assessed nine nature areas in Columbia in the summer of 2007 and classified distinct parcels larger than 0.5 ha using an entitation manual developed by the New York City Department of Parks and Recreation. We mapped the classified areas on 2007 imagery of the parks using ArcMap and determined the number of distinct units of each vegetation type and the area of each type. We used PC ORD to determine the Jacard similarity of the nine nature areas to each other based on vegetation type and used ordination and cluster analysis procedures to identify groups of nature areas with potentially similar management needs. Results/Conclusions We identified 15 vegetation types among 68 vegetation units among the nine nature areas. Medium tall grassland with open stands of trees was the most frequently occurring vegetation type and had the highest percent cover. Rare vegetation types included evergreen woodlands and freshwater wetlands.