Plant Communities and Prairie Plant Augmentation in Restored and Remnant Blackland Prairies of Mississippi

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Abstract: The Black Belt Region of Mississippi and Alabama is the largest blackland prairie in the southeastern United States. Large, contiguous tallgrass prairies are now extremely scarce over their historic range, with <1% of the original prairie area remaining in Mississippi. Currently, restoration of warm season grasslands is a primary conservation focus on private and public lands in Mississippi. However, limited information exists on comparisons between restored warm season grasslands and remnant, intact prairies. This information is part of an ongoing study that evaluates variations in plants species richness occurring in remnant, unperturbed prairies and restored grasslands of <10 years of age. Preliminary floristic surveys conducted in late summer 2006 assessed plant species richness in prairies along edges, transition zones near forest, fallow field, or pasture habitat, and within prairie interiors (>30 m from prairie edge). Vegetation was surveyed using line transects and 0.5-m hoops within rectangular plots. Edge habitats in two remnant prairies and restored grasslands exhibited higher plant species richness along the edge than prairie interiors. In remnant prairies, plant species richness ranged from 27 to 30 species along edges, whereas 23 to 28 species were found in prairie interiors. Similar trends were observed in the restored grassland where edges supported 35 plant species and interior areas supported 19 species. Total plant species detected in remnant prairies during autumnal surveys were 35 and 40; whereas, 35 plant species were found in the restored grassland. The remnant and restored prairies all had a total of two nonnative species. Nonnative species were only present in edge plots on all sites. Additional data from this ongoing study will be presented at the conference.

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