

2007. Strahl, M.\*, N.S. Gordon\*, M. Cipollini, P. Tomlinson, and R. Ware. Vegetative survey of Martha's Meadow, an open limestone glade habitat in northwestern Georgia." *Southeastern Biology* 54(3): 242. (Abstract)

Abstract: The vegetation of Martha's Meadow, a small (~1 ha) site at Berry College, Floyd County, Georgia is distinct from that of surrounding areas and appears to be a type of limestone glade community. Limestone (cedar) glades and barrens of the southeastern United States are characterized by high species richness and diversity, calcareous, limestone-based soil substrates, and approximately 23 endemic species. In order to characterize the vegetation of Martha's Meadow and to determine its affinity to other limestone-based communities, a three-year comprehensive species survey was followed by quantitative surveys in May, July, and October of 2006. A total of 192 species in 59 families were identified in the study area. 158 taxa in 46 families were found in the quantitative plot surveys, including 6 species considered rare in the state of Georgia and 24 exotic/invasive species. The most important native species were the perennial grass, *Danthonia spicata*, a southern sedge, *Carex cherokeensis*, and, *Verbesina virginica*, which is associated with alkaline soils. *Juniperus virginiana*, a key species associated with glade communities, had significant importance values in both woody and herbaceous strata. Ordination (DECORANA) and divisive classification (TWINSPAN) methods were used to compare the community structure of this site with other open calcareous habitats throughout the southeastern and mid-western United States.

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