Where the Buffalo Used to Roam

Historical accounts indicate that early explorers found open prairie-like landscapes in the Piedmont region of the Carolinas, along with bison and elk. These open landscapes may have been primarily maintained through fire by Native Americans in order to drive game, facilitate travel, and maintain agricultural land. Independent historical records indicate that these grass-dominated openings were an important part of the Carolina Piedmont region. Many of the plant and animal species indicative of this ecosystem are considered “disturbance dependent,” requiring periodic fire or grazing to maintain the health of the overall ecosystem. By the 1800’s, Europeans had displaced the Native Americans and settled into the Piedmont, converting prairies into pastures or allowing the open land to succeed into forest. Today, as a natural community, the Piedmont Prairie ecosystem has almost disappeared from our landscape.

From Roadsides to Prairies

Since 1994, Mecklenburg County Park and Recreation Department’s Division of Natural Resources (DNR) has been actively involved in the protection, management, and restoration of Piedmont Prairie habitat sites and the protection of rare, prairie-associated plant species. The program began with a collaboration between the County, the USFWS¹, NCDOT², and Professor L. S. Barden of UNC³-Charlotte for a NCDOT mitigation project resulting in transplanting the federally endangered Helianthus schweinitzii (Schweinitz’s sunflower) from a NCDOT roadwidening site to two protected county-owned sites. These two prairie restoration sites, known as Latta Prairie and McDowell Prairie, were the initial focus and foundation of the Division’s ongoing Piedmont Prairie Restoration Program.

More than Sunflowers and Grasses

The Prairie Restoration Program has since expanded to include six additional properties, and restoration activities at the first two prairie sites have expanded as well. The six additional Piedmont Prairie sites were identified by the presence of mafic soils, native grasses, and rare prairie plants including Helianthus schweinitzii, Echinacea laevigata (smooth coneflower), and Symphyotrichum georgianum (Georgia aster). The Prairie Restoration Program later expanded from a rare and endangered plant community focus to a comprehensive, adaptive conservation strategy known as the Management of Early Successional Habitats (MESH) Program, including management goals for common native plants and target wildlife species. Agricultural fields were designated for conversion to warm-season native grasslands utilizing funding from NRCS⁴ WHIP⁵ contracts. Another warm-season native grass community restoration site, Dodge City Prairie (McDowell Nature Preserve), was created through the USFWS Partners Program beginning in 1999. Several of Mecklenburg County’s high quality prairie sites are small utility right-of-ways or roadsides that have been continuously disturbed and harbor remnant rare plant populations. Mecklenburg County DNR has either purchased these sites or assumed their management.
Seeds and Beyond

One of our primary projects is collection of locally native forb and grass seed and propagation within Mecklenburg County prairie restoration sites. A greenhouse for propagation of these plants and several rare species was initially funded by the USFWS Partners Program in 2004. Other current and future components of the program include: migration and breeding season avian point counts, avian nest success studies, breeding and non-breeding season bird banding, reptile and amphibian coverboard and PVC pipe refugia monitoring, rare plant population monitoring, exotic species removal, prescribed burning, white-tailed deer surveys, small and medium-sized mammal surveys, invertebrate inventories, vegetation composition monitoring, and research into improved propagation techniques.

This Grassland is for the Birds

In spring 2001, fauna baseline data collection began at McDowell Prairie, and an ambitious grassland expansion project partially funded by the NC Plant Conservation Program and the USFWS Partners Program was begun to enlarge the prairie restoration area to provide a larger, unfragmented native grassland habitat for declining grassland bird species. A 150-acre contiguous grassland and shrubland habitat has now evolved from the initial 15-acre prairie restoration site. Comparison of faunal data is now in progress and changes in avian species composition and breeding status are already evident. Species targeted by DNR’s management of grassland habitat include grasshopper sparrow, savannah sparrow, vesper sparrow, eastern meadowlark, northern bobwhite, American woodcock, loggerhead shrike, northern harrier, wild turkey, and white-tailed deer.

Educational Fact Sheet

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Abbreviations

1USFWS = United States Fish and Wildlife Service
2NCDOT = North Carolina Department of Transportation
3UNC = University of North Carolina
4NRCS = Natural Resource Conservation Service
5WHIP = Wildlife Habitat Incentives Program