

Bird diversity reflects battlefield park's natural setting

By Bryan Gorsira

THE DECLINE OF GRASSLAND birds has been called the conservation crisis of the 21st century (Brennan and Kuvlesky 2005). It is estimated that since the mid-1800s, grassland ecosystems in North America have declined by 80%. In Virginia, idle grasslands have been reduced by an estimated 55% since 1945. Recent analysis of the Bull Run watershed, which encompasses the park, indicates that nearly 10,000 acres (4,050 ha) have been developed since 2002. Understanding the importance of grasslands to regional conservation, natural resource managers at Manassas National Battlefield Park have been actively managing park grasslands since 1997 by converting more than 1,000 acres (405 ha) from nonnative cool-season grasses to native warm-season grasses. The native grasses function better as sources of food and cover for wildlife, stabilize the soil, are drought tolerant, and require very little maintenance. Yet they retain the character and overall appearance that are important for historical interpretation of the battlefield. These converted grasslands offset some of the development in the area by providing a refuge for resident and migratory breeding birds like the northern bobwhite quail, prairie warbler, and other grassland species.

Annual Audubon Northern Virginia bird survey counts at Manassas have been held every year in June and July since 1995 and follow a standardized point-count methodology to closely monitor and assess bird populations and trends. Whereas bird counts have noted a decline in several species throughout the country, no significant changes in species numbers or composition have been detected at Manassas from 1995 to 2009. This analysis helps to

confirm the importance of this park for birds. In addition, the park was recently nominated as an Important Bird Area by the Audubon Society, based primarily on the quality of the park's grasslands. The park supports some of the best examples of grassland and shrubland habitat types in the region, with healthy populations of eastern meadowlark, grasshopper sparrow, field sparrow, prairie warbler, brown thrasher, and eastern towhee—all species of conservation concern in Virginia.

Manassas National Battlefield Park is an example of how a relatively small national park (around 5,000 acres, or 2,023 ha), and one established for cultural and historical purposes, can make a significant contribution to regional biodiversity. Of the 18 migratory species listed in 2008 by the U.S. Fish and Wildlife Service as regional birds of conservation concern, 9 occur in the park. Manassas supports more than 160 bird species, 54 of which are confirmed breeders, and more than half of those are migratory. In addition, nearly 50 butterfly species, more than 200 moth species, and approximately 700 vascular plants have been documented in the park. Last year's grasslands survey documented 51 bird species, 12 butterfly species, representatives of five bee genera, and 49 plant species. Ten of the birds observed were of regional conservation concern and three of continental concern. As more and more parks take part in biodiversity discovery activities throughout the National Park System, we will gain a clearer picture of the importance of "cultural" parks like Manassas to preserving native biodiversity.



NPS PHOTO/BRYAN GORSIRA

Northern bobwhite quail at Manassas National Battlefield Park.

Literature cited

Brennan, L. A., and W. P. Kuvlesky, Jr. 2005. North American grassland birds: An unfolding conservation crisis? *Journal of Wildlife Management* 69(1):1–13.

About the author

Bryan Gorsira (bryan_gorsira@nps.gov) is a wildlife biologist and Natural Resource Program manager at Manassas National Battlefield Park, Virginia.