



Red-headed woodpecker
by Bill Tucker

Breeding bird monitoring at Booker T. Washington National Monument: 2019 status and trends

For the last 10 years, the scientists of the National Park Service's Mid-Atlantic Network have worked with skilled volunteers to monitor bird populations in national parks across the mid-Atlantic region. The information gathered is used to improve our understanding of the relationships between breeding birds, available habitats, and park resource management. The goal of the program is to develop the best available science so national parks can better understand and protect their resources. This brief provides a summary of 2019 breeding bird monitoring results for Booker T. Washington National Monument.

In the summer of 2019, two volunteers (Bill and Anne Tucker) conducted 21 surveys at 11 sites across the park. During a survey, the volunteers documented every bird heard or seen over a 10 minute period. Sites in both forest and grassland habitat were visited multiple times during the breeding season.

For years, the park has been encouraging meadow diversity and native warm-season grasses to benefit birds. Results from 2019 show that some grassland specialists, like grasshopper sparrows and eastern meadowlarks — both regional species of conservation concern — are found at the park (see Species of Regional Concern, right).



This field is one location where native grasses are being encouraged through exotic plant control. A small experimental plot of native warm-season grasses was planted here by a local Master Naturalist group. NPS / Timothy Sims.

Highlights

- During the summer of 2019, two volunteers conducted 21 surveys at 11 sites across the park.
- Several species of regional concern were documented with some, including yellow-billed cuckoos and grasshopper sparrows, being relatively abundant.
- Forest bird community index scores suggest moderate to high ecological health of park forest bird communities.

Species of Regional Concern

The Partners in Flight Program is a network of organizations involved in bird conservation in the Western Hemisphere. This program has identified a number of bird species that are declining and facing increasing threats across the mid-Atlantic region. These birds are of particular interest to park managers, and 9 species of regional concern were observed during 2019 bird monitoring.

Bellow is a list of the species of regional concern observed in the park in 2019:

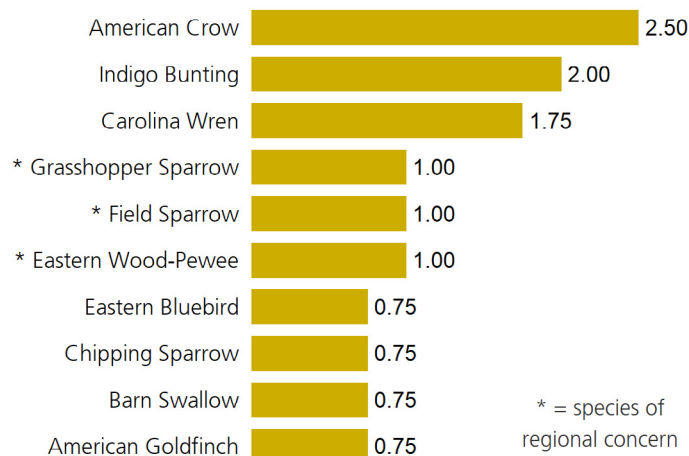
<u>Common name</u>	<u>Number of observations</u>
Yellow-billed cuckoo	14
Eastern wood-pewee	12
Grasshopper sparrow	7
Wood thrush	7
Eastern meadowlark	5
Field sparrow	5
Northern flicker	3
Eastern towhee	1
Prairie warbler	1

Grasshopper sparrows are grassland specialists and are a species of regional conservation concern. Despite regional population declines of more than 50%, grasshopper sparrows were the 4th most common bird observed at grassland sites in the park. Field sparrows, another grassland species of concern were also relatively abundant. Continued and improved management of warm-season grass meadows should support an increase in rare grassland-dependent birds like grasshopper sparrows.



Grasshopper sparrow by Andrew Weitzel / Flickr

Ten most abundant birds in grassland sites (average number observed per site)

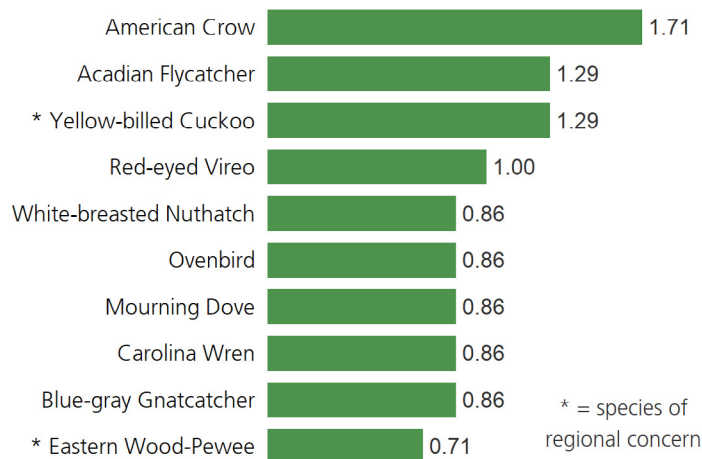


The most abundant bird in forested monitoring sites in 2019 was the American crow. Interestingly, the 3rd most common forest bird was the yellow-billed cuckoo, which is a species of regional conservation concern. Partners in Flight considers yellow-billed cuckoos a “common bird in steep decline” with range-wide population declines more than 50% since the 1970s. Maintaining forest habitat will benefit birds, including the yellow-billed cuckoo.



Yellow-billed cuckoo by Dominic Sherony / Flickr

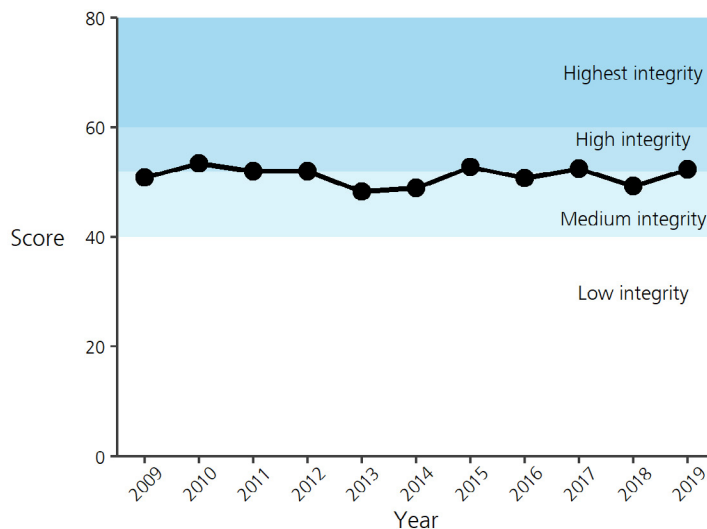
Ten most abundant birds in forested sites (average number observed per site)



Scientists can study the abundance of all the bird species in an area to determine the overall health of the bird community. The forest bird community index score (O’Connell et al., 2000) for the park shows that the forest bird community is moderately healthy (i.e. has “medium” or “high integrity”). Continued management for mature forest habitat will help maintain this high score. That said, given the park’s relatively small size, conservation of mature forests on surrounding private lands may be important for the long-term persistence of Booker T. Washington National Monument’s forest bird communities.

For more information, [see the park’s 2019 breeding bird monitoring report \(Johnson, 2020\)](#).

Forest bird community index score (2009-2019)



Citations: Johnson, M.J. 2020. Breeding bird monitoring: Booker T. Washington National Monument 2014–2019 summary report. NPS/MIDN/NRDS—2020/1275. NPS, Fort Collins, CO.
O’Connell, T.J., L.E. Jackson, and R.P. Brooks. 2000. Bird guilds as indicators of ecological condition in the central Appalachians. *Ecological Applications*, 10(6).

Lead Scientist

Mark Johnson
mark_johnson@nps.gov
 Ecologist / Data Manager

Mid-Atlantic Network

120 Chatham Lane
 Fredericksburg, VA 22405
www.nps.gov/im/midn

Network parks: Appomattox Court House NHP • Booker T. Washington NM • Eisenhower NHS • Fredericksburg & Spotsylvania NMP • Gettysburg NMP • Hopewell Furnace NHS • Petersburg NB • Richmond NBP • Shenandoah NP • Valley Forge NHP