



Bird Monitoring at Arkansas Post National Memorial

Importance: *An important component of the park ecosystem*

Birds intrigue and excite visitors, having become an important part of park interpretive programs. Bird watching has grown into a popular recreational activity in and around Arkansas Post NM. Beyond the pleasure that birds provide, they are an important component of park ecosystems. Their high metabolism and position in the food web make them indicators of change in an ecosystem – the canary in the mine, so to speak. Preserving habitat for the wellbeing of bird populations preserves entire ecosystems for the benefit of all species.



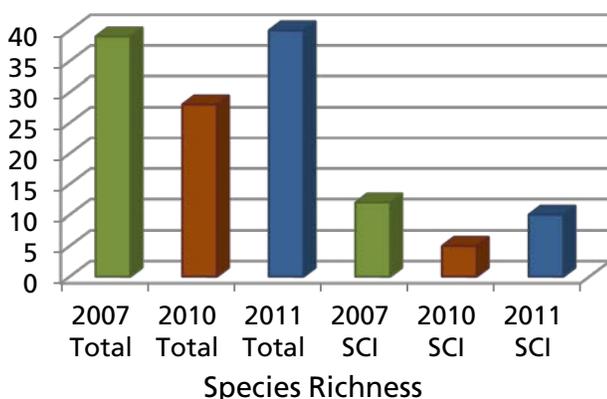
Great Egret – HTLN photo

Long Term Monitoring: *Assessing change*¹

The Heartland Inventory and Monitoring Network monitors change in bird community composition and bird abundance to determine the health of the community. Scientists accomplish this by surveying seasonal and year-round resident birds on the park during the breeding season. These data and an evaluation of habitat structure and composition contribute to assessing responses of bird communities to changes in their habitat. Bird surveys were completed in 2007, 2010, and 2011. Surveys followed methods outlined in a bird monitoring protocol, where scientists stand in the center of a circular search area and listen and watch for birds. Species counts are compared to an analysis of habitat in the area. Scientists will use breeding bird surveys to assess the integrity of the varied habitats over time.

Status and Trends: *Baseline data give reference point for evaluating management actions*

The diverse mix of woodland, field/prairie, lawn, riparian, wetland and woodland edge habitat beneficially influenced bird species diversity or richness. Current efforts to restore and maintain mixed habitats at the park provides a diversity of



habitats necessary to meet the varied requirements of the 16 breeding Species of Continental Importance (SCI), species in decline across the continent, documented in the park. Additionally, scientists found:

1. Thirteen species of the 66 documented species were recorded in each of the three survey years. This indicates stability in the breeding bird population. Three of those 13 species are SCI.
2. The assistance of volunteers in bird surveys increases the amount of data and refines the results of the surveys.

Species richness was used as a measure of biodiversity, and was calculated each year for breeding birds surveyed. Many environmental factors can cause changes in species richness. More data are needed to come to conclusions about community trends and status.

Heartland Inventory and Monitoring Network of the National Park Service. Visit www1.nature.nps.gov/im/htln/index.htm.

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¹Peitz, D. G. 2011. Bird community monitoring at Arkansas Post National Memorial, Arkansas: Status report. Natural Resource Data Series NPS/HTLN/NRDS—2011/209. National Park Service, Fort Collins, Colorado.