



Bird Monitoring at Tallgrass Prairie National Preserve

Importance: *Important component of ecosystems*

Birds intrigue and excite visitors, having become an important part of park interpretive programs. 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. Maintaining habitat for the wellbeing of bird populations conserves entire ecosystems for the benefit of all species.

Long Term Monitoring: *Assessing change*¹

The Heartland Inventory and Monitoring Network monitors changes in bird community composition and bird abundance to determine the health of the community. Network staff accomplishes this by surveying seasonal and year-round resident birds in the Preserve during the breeding season to determine bird community composition and abundance. Scientists use breeding bird surveys to assess the integrity of the habitat over time with consideration to management actions. The network initiated a bird survey in 2001 to provide plot-specific, habitat-specific, and park-wide data on bird populations and the impacts of resource management within the Preserve.



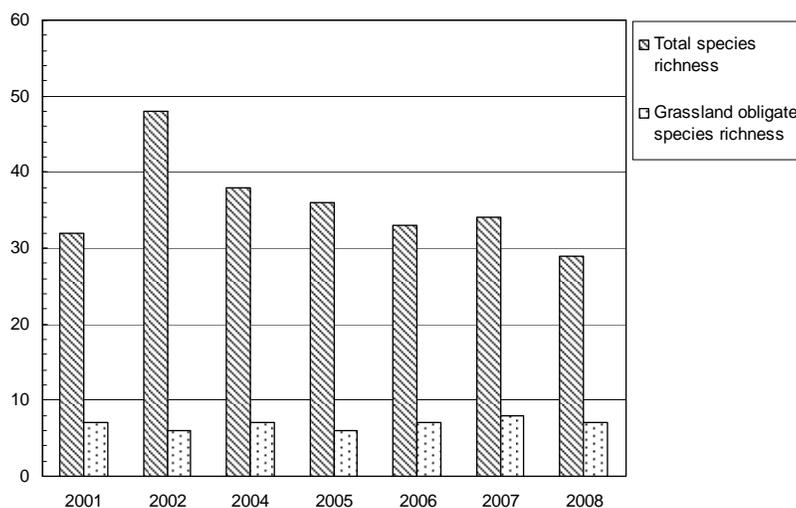
Eastern Meadowlark (Sturnella magna) is a grassland obligate species, a species dependent on grassland habitat.

Status and Trends: *Habitat variables and community structure*

Scientists found 91 bird species on the Preserve. Fifteen of these species have experienced severely declining numbers, making them species of continental concern. Twelve species depend solely on grassland for their breeding habitat. The Grasshopper Sparrow (*Ammodramus savannarum*), a grassland dependent species, has the highest density of all species

on the Preserve. Additionally, scientists found:

1. When the Preserve began rotational patch-burn-grazing in 2006, it increased vertical structure and grass litter in the habitat. Consequently, two grassland species, Eastern meadowlark (*Sturnella magna*) and Henslow's sparrow (*Ammodramus henslowii*), have increased in abundance.
2. Western meadowlark (*Sturnella neglecta*), subsequently declined with the initiation of patch-burn-grazing, probably because this species favors short, sparse grass cover.



Total richness of breeding bird species in grassland habitat, years 2001–2008, excluding 2003, compared to total richness of breeding grassland obligate bird species.

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

... protecting the habitat
of our heritage



¹ Peitz, D. G., M. M. Guck, and J. M. James. 2009. Bird monitoring at Tallgrass Prairie National Preserve, Kansas: 2001-2008 status report. Natural Resource Technical Report NPS/HTLN/NRTR—2010/318. National Park Service, Fort Collins, Colorado.