

Birds

RESOURCE BRIEF

Importance

The National Park Service's mission is to manage park resources "unimpaired for future generations." Protecting and managing some of our nation's most significant natural resources requires basic knowledge of the condition of ecosystems and species that occur in national parks. Landbirds are a conspicuous component of many ecosystems and have high body temperatures, rapid metabolisms, and occupy high trophic levels. As such, changes in landbird populations may be indicators of changes in the biotic or abiotic components of the environment upon which they depend. Relative to other vertebrates, landbirds are also highly detectable and can be efficiently surveyed with the use of numerous standardized methods.



STEVE MASLOWSKI

Dickcissel

Status and Trends

With the exception of some pilot efforts at PECO in 2008, SOPN began monitoring birds in 2009. This effort is part of a collaboration among the Southern Plains, Sonoran Desert, and Chihuahuan Desert Networks. The overall goal of our

bird monitoring program is to detect biologically significant changes in population parameters over time. Details of our approach can be found in Powell et al. 2010. At WABA, we surveyed each of 2 transects (Fig. 1) two times during the breeding season (Table 1). The specific objectives of our efforts are:

1. To estimate the proportion of sites occupied for most species in most parks. Occupancy is a measure of presence or absence of a species in space that, when evaluated across time, indi-

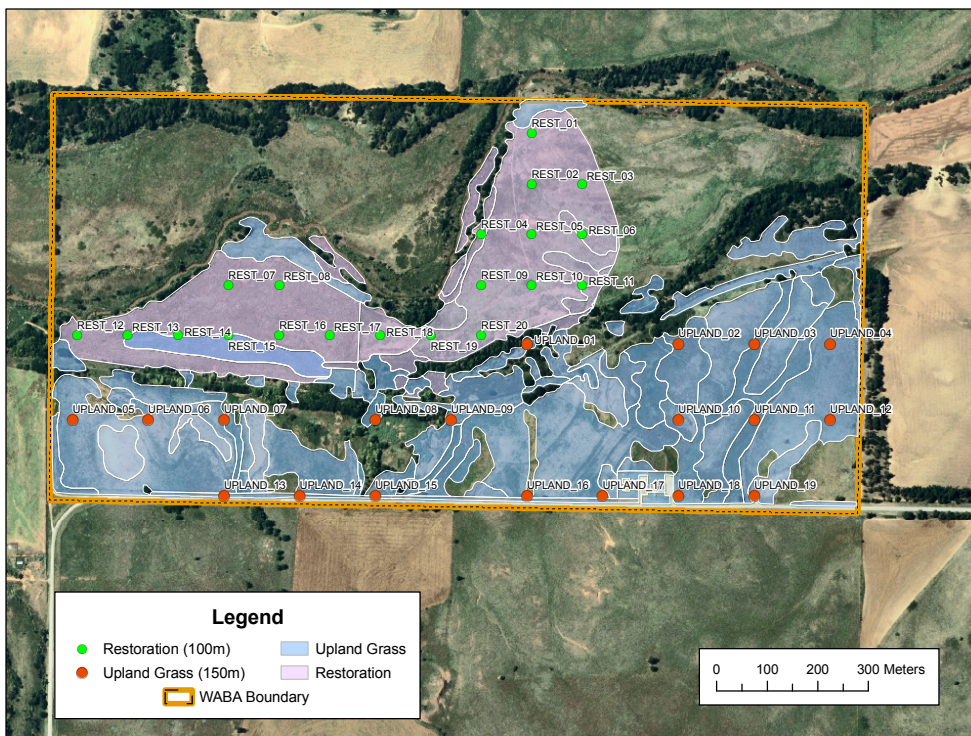


Figure 1. Bird sampling locations at Washita Battlefield NHS

Table 1. Sampling dates at Washita Battlefield NHS

Location Name	Visit 1	Visit 2
REST	6/4/2009	6/9/2009
UPLAND	6/8/2009	6/9/2009



Table 2. The bird species, species ID Code, and number of detections of birds during the 2009 survey at Washita Battlefield National Historic Site.

Species	Species Code	No. Detections
American Crow	AMCR	2
American Goldfinch	AMGO	1
Barred Owl	BADO	2
Barn Swallow	BARS	30
Bewick's Wren	BEWR	4
Blue-Gray Gnatcatcher	BGGN	26
Brown-Headed Cowbird	BHCO	42
Carolina Chickadee	CACH	12
Carolina Wren	CARW	9
Cassin's Sparrow	CASP	11
Cliff Swallow	CLSW	13
Common Nighthawk	CONI	8
Dickcissel	DICK	152
Eastern Bluebird	EABL	10
Eastern Meadowlark	EAME	37
Field Sparrow	FISP	28
Great Crested Flycatcher	GCFL	10
Great Horned Owl	GHOW	4
Green Heron	GRHE	1
Grasshopper Sparrow	GRSP	7
Hairy Woodpecker	HAWO	2

Species	Species Code	No. Detections
Killdeer	KILL	3
Lark Sparrow	LASP	16
Mississippi Kite	MIKI	3
Mourning Dove	MODO	52
Northern Bobwhite	NOBO	54
Northern Cardinal	NOCA	66
Northern Mockingbird	NOMO	13
Northern Rough-Winged Swallow	NRWS	5
Painted Bunting	PABU	30
Pileated Woodpecker	PIWO	1
Purple Martin	PUMA	1
Red-Bellied Woodpecker	RBWO	21
Red-Tailed Hawk	RTHA	3
Red-Winged Blackbird	RWBL	17
Scissor-Tailed Flycatcher	STFL	3
Swainson's Hawk	SWHA	3
Turkey Vulture	TUVU	4
Wild Turkey	WITU	6
Yellow-Billed Cuckoo	YBCU	15
	Total	727

cates changes in the distribution of a species.

2. To estimate parameters related to community dynamics, particularly species richness and species composition. Monitoring the richness and composition of native communities can provide valuable insights about changes in the overall health of the system of concern.

3. To estimate density of the most-common species.

It is important to note that our objectives focus on long-term changes and trends, which requires a minimum number of years before meaningful estimates related to trend are feasible. Consequently, it is neither practical or feasible to conduct comprehensive analyses for each objective on an annual basis. For annual resource briefs, such as this one, will provide a basic data summary. At a more reasonable frequency of every 5 years, we will provide a comprehensive synthesis report that will go into much greater depth, including analyses for all objectives and interpretations that consider our results in broader

ecological context.

During our 2009 surveys, we had 727 detections of birds of 40 species. Dickcissels were the most commonly detected species, with Northern Cardinals, Mourning Doves, and Northern Bobwhite also observed in relatively high abundance. Of particular note were the number of Painted Buntings, a species quite prized by birders.