



CHICKASAW

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.



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Yellow Billed Cuckoo

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 CHIC, we surveyed each of 4 transects (Figs. 1 and 2) 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, indicates changes in the distribution of a species.

Table 1. Sampling dates at Chickasaw NRA

2.

Location Name	Visit 1	Visit 2
5LAKES	5/30/2009	5/31/2009
NHUNT	5/20/2009	5/29/2009
WHUNTE	5/19/2009	5/28/2009
WHUNTW	5/18/2009	5/27/2009

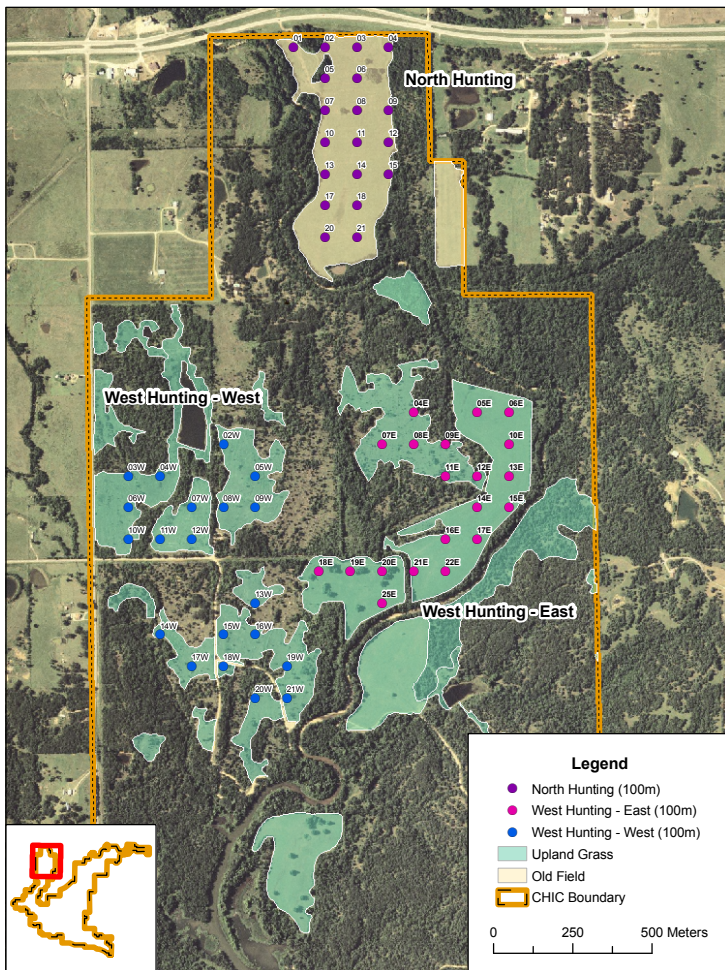


Figure 1. Bird sampling locations at Chickasaw NRA (North and West Hunting)



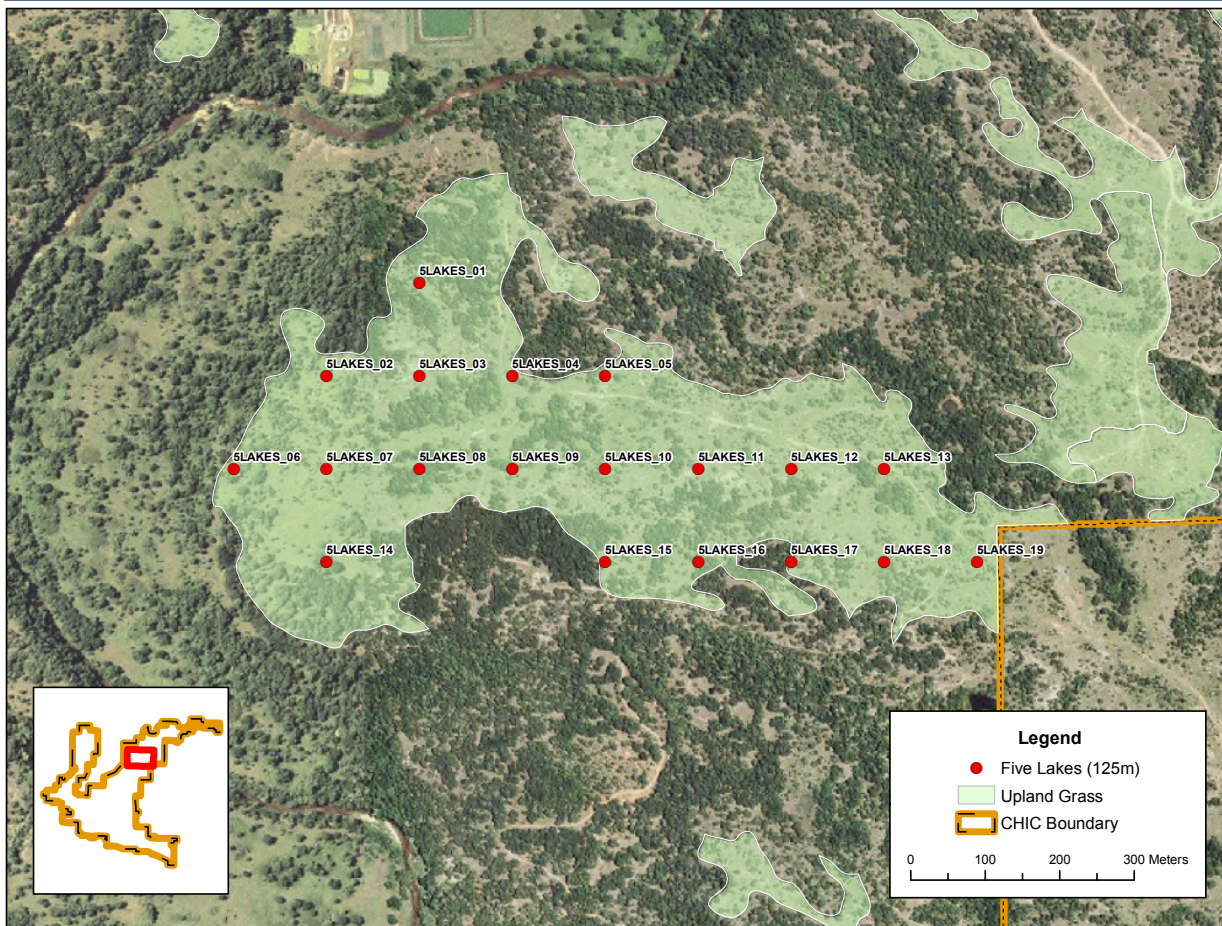


Figure 2. Bird sampling plocations at Chickasaw NRA (Five Lakes)

Table 2. The bird species, species ID Code, and number of detections of birds during the 2009 survey at Chickasaw National Recreation Area.

Species	Species Code	No. Detections	Species	Species Code	No. Detections
American Crow	AMCR	31	Canada Goose	CANG	9
American Goldfinch	AMGO	2	Carolina Wren	CARW	68
Barred Owl	BADO	33	Cliff Swallow	CLSW	9
Barn Swallow	BARS	25	Common Grackle	COGR	7
Black-And-White Warbler	BAWW	28	Common Nighthawk	CONI	2
Bewick's Wren	BEWR	26	Common Yellowthroat	COYE	4
Blue-Gray Gnatcatcher	BGGN	111	Chuck-Will's-Widow	CWWI	18
Brown-Headed Cowbird	BHCO	98	Dickcissel	DICK	2
Blue Jay	BLJA	21	Downy Woodpecker	DOWO	14
Black Vulture	BLVU	24	Eastern Bluebird	EABL	3
Brown Thrasher	BRTH	5	Eastern Meadowlark	EAME	4
Broad-Winged Hummingbird	BWHA	2	Eastern Phoebe	EAPH	15
Carolina Chickadee	CACH	56	Eastern Wood-Pewee	EAWP	3
Cattle Egret	CAEG	39	Field Sparrow	FISP	111

Table 2. Continued

Species	Species Code	No. Detections
Great Blue Heron	GBHE	10
Great Crested Flycatcher	GCFL	29
Great Egret	GREG	14
Gray Flycatcher	GRFL	1
Green Heron	GRHE	6
Great-Tailed Grackle	GTGR	1
Hairy Woodpecker	HAWO	4
Hooded Warbler	HOWA	3
Indigo Bunting	INBU	105
Least Flycatcher	LEFL	3
Louisiana Waterthrush	LOWA	12
Mississippi Kite	MIKI	6
Mourning Dove	MODO	26
Northern Bobwhite	NOBO	12
Northern Cardinal	NOCA	211
Northern Flicker	NOFL	1
Northern Mockingbird	NOMO	1
Northern Parula	NOPA	13
Orchard Oriole	OROR	2
Olive-Sided Flycatcher	OSFL	2
Painted Bunting	PABU	84
Pileated Woodpecker	PIWO	16

Species	Species Code	No. Detections
Purple Martin	PUMA	6
Red-Bellied Woodpecker	RBWO	18
Rufous-Crowned Sparrow	RCSP	9
Red-Eyed Vireo	REVI	12
Ring-Necked Pheasant	RNEP	1
Rock Pigeon	ROPI	1
Red-Shouldered Hawk	RSHA	2
Red-Tailed Hawk	RTHA	1
Ruby-Throated Hummingbird	RTHU	8
Scissor-Tailed Flycatcher	STFL	5
Summer Tanager	SUTA	22
Swainson's Thrush	SWTH	1
Tufted Titmouse	TUTI	137
Turkey Vulture	TUVU	48
Warbling Vireo	WAVI	1
Western Kingbird	WEKI	5
White-Eyed Vireo	WEVI	56
Wood Duck	WODU	2
Yellow-Breasted Chat	YBCH	15
Yellow-Billed Cuckoo	YBCU	25
Yellow Warbler	YWAR	2
Total		1709

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 ob-

jectives and interpretations that consider our results in broader ecological context.

During our 2009 surveys, we had 1709 detections of birds of 71 species. Northern Cardinals were the most commonly detected species, with Tufted titmouse, Blue-gray Gnatcatchers and Field Sparrows also being present in notable abundance.