



Birds 2010

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 have high body temperatures and rapid metabolisms, and they occupy high trophic levels. Therefore, they may be indicators of changes in the biotic or abiotic components of the environment upon which they depend. Landbirds are also a conspicuous component of many ecosystems, making them highly detectable and efficiently surveyed with the use of numerous standardized methods.

Status and Trends

The Southern Plains Network (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 our monitoring protocol (in review). At Fort Larned National Historic Site (NHS), we sampled three transects/grids (two in grassland habitat and one in riparian habitat; Figure 1) three times (from June 16-21) during the breeding season. 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.
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. It is neither practical nor useful to conduct

RESOURCE BRIEF



Dickcissel

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comprehensive analyses for each objective on an annual basis. Therefore, we will provide basic data summaries on an annual basis (in resource briefs such as this one), and, once every five years, a comprehensive synthesis report that will go into much greater depth, including analyses for all objectives and interpretations in a broader ecological context.

Results and Discussion

During 2010, 712 birds of 37 species were counted at Fort Larned NHS. Although there were more survey points in grassland than in riparian habitat (75 compared to 54), a greater number of species and individual birds were counted in riparian habitat (e.g., 34 species in riparian habitat compared to 21 in grassland habitat). The dickcissel was the most commonly counted species (14%) at the NHS. Baltimore oriole (9%), eastern meadowlark (8%), house wren (8%), American robin (6%), and mourning dove (6%) were also common. At least two singing Eurasian collared-doves were detected, representing a new species for the park. No other new species were detected at the park in 2010.

Of the 37 species detected, 10 are national or regional species of concern, but none are state or federally-listed threatened or endangered species. Prominent species included brown-

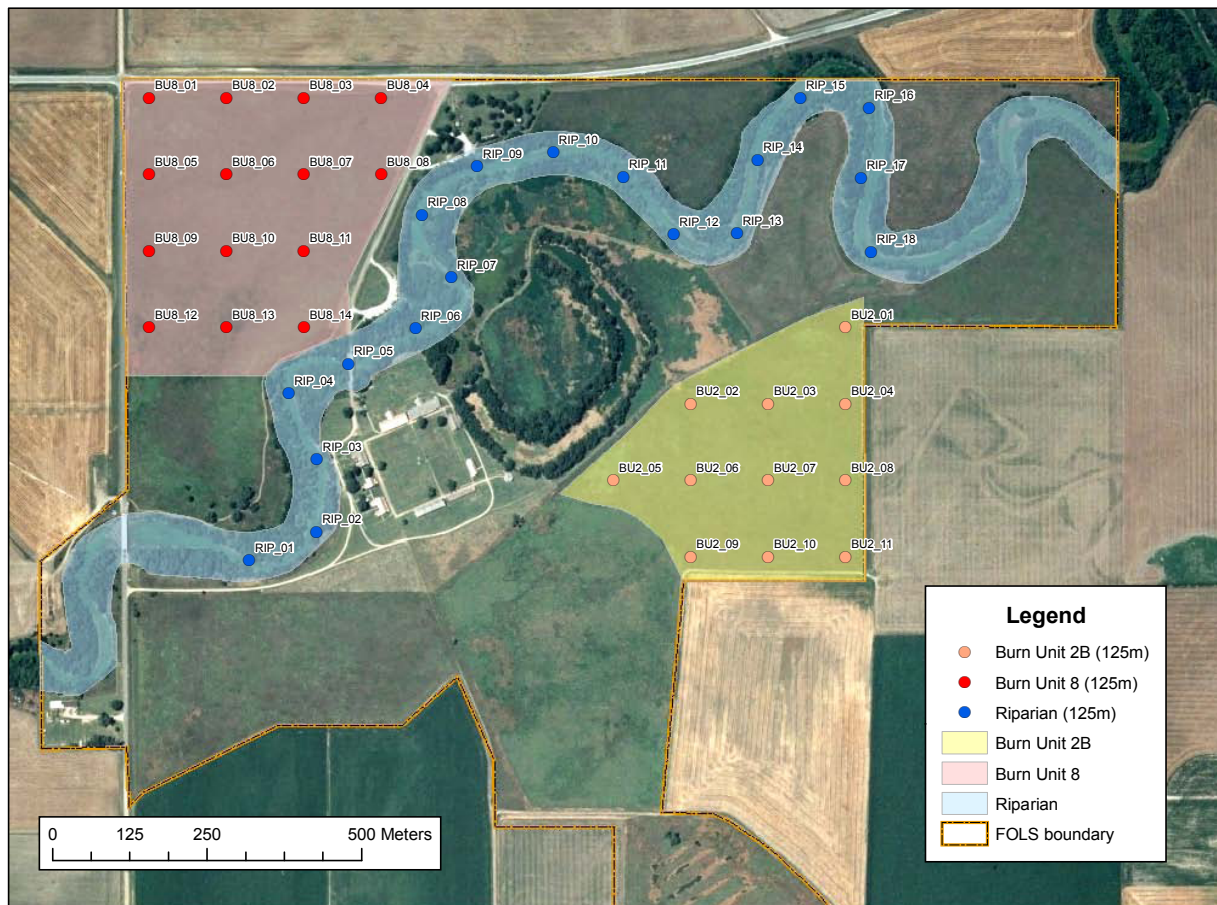


Figure 1. Bird sampling locations at Fort Larned NHS.

headed cowbird, orchard oriole, ring-necked pheasant, red-winged blackbird, and western meadowlark. Notable interesting species detected were a calling black-billed cuckoo (a rare species in Fort Larned NHS), gray catbird, a calling northern bobwhite, rose-breasted grosbeak, yellow-billed cuckoo, and warbling vireo. Fort Larned is the only site in the SOPN with breeding populations of eastern meadowlark and western meadowlark.

The Rocky Mountain Bird Observatory (RMBO), the NPS's primary cooperator for this project, manages the bird monitoring data. The data are available through the RMBO Avian Data Center (URL: <http://www.rmbo.org/public/monitoring/CountsEffort.aspx.4>).

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Southern Plains Network website
(URL: <http://www.nature.nps.gov/im/units/SOPN>)

Learning Center of the American Southwest
(URL: <http://www.southwestlearning.org>)



Red-winged blackbird

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