



Birds 2010

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 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 Capulin Volcano National Monument (NM), we sampled two transects/grids (Figure 1) in grassland habitat three times (from June 5-9) during the breeding season. The grassland transects included some pinyon-juniper



PHOTO: © ROBERT SHANTZ

Spotted towhee

woodlands that were targeted for conversion to grassland. 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 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, 1,084 birds of 53 species were counted at Capu-

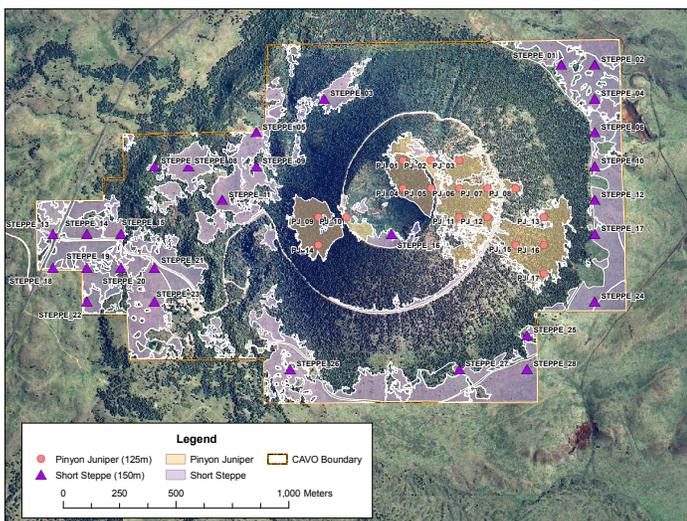


Figure 1. Bird sampling locations at Capulin Volcano NM.

lin Volcano NM. Spotted towhee was the most commonly counted species (14%). Also common were western wood-pewee (10%), northern mockingbird (10%), black-headed grosbeak (6%), and Cassin's kingbird (5%). Other prominent species included green-tailed towhee (4%), chipping sparrow (4%), mourning dove (4%), and lark sparrow (4%).

Two news species were recorded in Capulin Volcano NM in 2010: peregrine falcon, listed as threatened with the state, and prairie falcon. Both of these birds were detected (one of each species) on woodland survey points. Several other interesting birds were noted in the park: Cassin's sparrow, hepatic and western tanager, common and Chihuahuan raven, and three species of wrens—Bewick's, house, and rock.

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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Canyon towhee, observed in small numbers at the park in 2010.