

Birds 2009

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.

Landbird Monitoring Locations

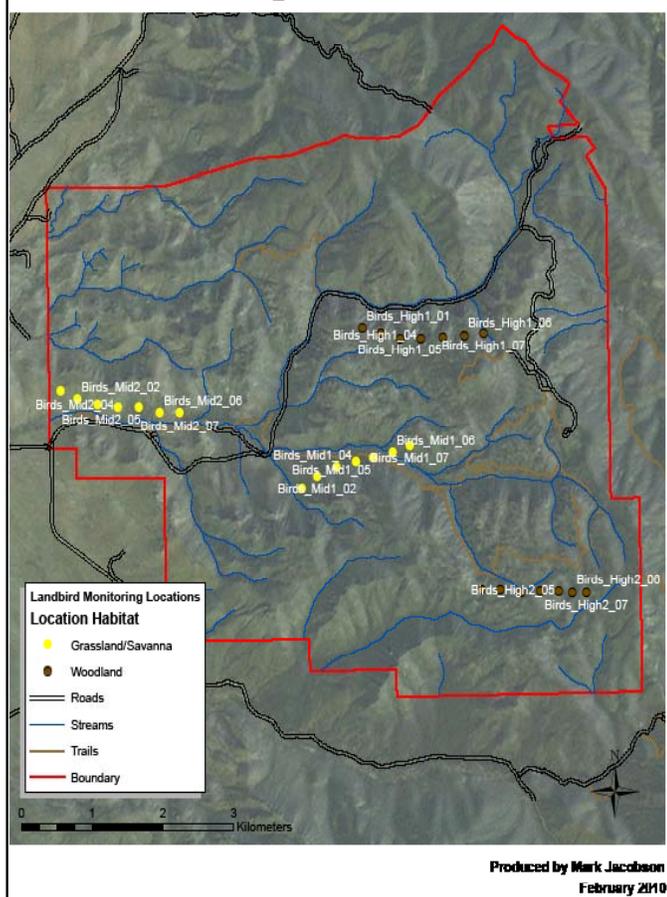


Figure 1. Bird sampling locations at Chiricahua NM.



Bewick's wren

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Status and Trends

The Sonoran Desert Network (SODN) began monitoring birds in Spring 2007. 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 preparation). At Chiricahua National Monument (NM), we sampled 27 survey points along four transects (Figure 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, 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, and a minimum number of years are re-

quired before meaningful estimates related to trends are feasible. Consequently, it is neither practical nor feasible to conduct comprehensive analyses for each objective on an annual basis.

Table 1. Sampling dates at Chiricahua NM.

Location Name	Visit 1	Visit 2
High 1 (Woodland)	6/09/2009	6/28/2009
High 2 (Woodland)	6/09/2009	6/28/2009
Mid 1 (Grassland/Savanna)	6/08/2009	6/27/2009
Mid 2 (Grassland/Savanna)	6/08/2009	6/27/2009

Results and Discussion

During our 2009 surveys, we had 711 detections of birds of 65 species. Bewick's wrens were the most commonly detected species, accounting for 10.5% of the total detections. Also common were spotted towhees (10%), black-throated gray warblers (8%), rufous-crowned sparrows (7%), canyon wrens (4%), and ash-throated flycatchers (4%). No new species were recorded for the monument in 2009.

The most exciting news at the park was the discovery of a male eared quetzal a week before the bird surveys were conducted. The eared quetzal, formerly known as the eared trogon, is a very rare neotropical vagrant from the sky islands of Mexico. It has occurred in the U.S only a handful of times, mostly in the higher conifer ridges of the Chiricahua Mountains adjacent to the park. The bird was seen by several skilled and credible birders, but despite diligent searching during and after surveys, the bird was not detected again. Even so, it constitutes a valid record for the park, and an exciting one at that.



Spotted towhee

PHOTO: © ROBERT SHANTZ

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