



MOJAVE NETWORK

Inventory Summary Report

INVENTORY OF BIRDS AT GREAT BASIN NATIONAL PARK

INTRODUCTION AND OBJECTIVES

In September 2003, the Mojave Network entered an agreement with the University of Nevada, Reno to complete a project titled "Baseline Assessment of the Inventory of Bird Species of the Great Basin National Park (GRBA) and Update of the National Park Service NPSpecies Database". The objective of this inventory was to document at least 90% of the bird species thought to commonly occur within Great Basin National Park and to perform additional data-mining activities to increase the level of documentation for each species. Additionally, the study sought to give special attention to Threatened and Endangered species, exotics, and birds of special management interest, as well as to provide baseline information that could later be used to develop a general bird monitoring strategy for the park.

METHODS

Only breeding, summer resident, winter resident, and migratory bird species estimated to occur within Great Basin National Park were documented; vagrant and infrequently occurring species were not included in the inventory. Once data was collected, it was entered into NPSpecies and species status, abundance, residency, and nativity were determined. Species with documented reliable sightings within park boundaries that were determined to be winter resident, summer resident, breeder or migrant, were listed as Present. A species documented just outside the park, but thought to likely exist in the park, was labeled as Probably Present.

Interviews - Interviews with park personnel and volunteers, local birders, and other individuals with potential knowledge or sighting information were conducted to determine the existing level of bird information for the park.

Literature Searches - Literature searches were done at the GRBA resource management office and the University of Nevada, Reno and aimed to document all published records of bird sightings near Great Basin National Park. All literature containing sighting information from within the Park or from its immediate vicinity was included.

Museum Searches - Fourteen museum collections were searched for voucher specimens taken from Great Basin National Park. The search used the following keywords: *nevada, wheeler, lehman, baker, great basin, white pine county, and snake range*. Due to GRBA's recent formation, in 1986, most specimens were collected from the area before it was established as a national park and, therefore, it was important to search using descriptive keywords.



Pinyon Jay. Photo Courtesy Steve Ting Photography
(<http://www.stevetingphotography.com>)

Observations - Casual observation data, including GRBA observation cards and bird-watcher's reports, was gathered and screened for species documentation. The observations were then verified based on an evaluation of the bird identification skills of the observer. If no information about the observer was found, the observation was disregarded. All known databases from organized surveys for regional monitoring networks such as Great Basin Bird Observatory's (GBBO) Nevada Bird Count or USGS' Breeding Bird Survey were also searched for bird sighting information within GRBA.

RESULTS AND DISCUSSION

This inventory concluded that there are a total of 150 species which are summer resident, winter resident, breeding, or migratory within GRBA; 139 species have been confirmed, increased from 124 previously documented species, and 11 remain unconfirmed bird species. This project reached its initial goal with 93% of the 150 species being documented.

Seven new literature references were added to NPSpecies, bringing the total to 13 references and 124 species. The museum search found 337 vouchers, 229 of which were documented from within the park boundaries. Although the number of vouchered species did not change from the previously known 64 species, 336 voucher entries were added to NPSpecies. Before this project no observed species had been documented for GRBA in NPSpecies. 126 observed species were added to NPSpecies, with 1545 well-documented individual observations.

No Threatened and Endangered bird species were found to be resident, breeding, or migrating through GRBA. The Greater Sage-grouse is a species of concern that historically reproduced within the park, but it could not be confirmed as a current, regular species for GRBA.

About 75% of GRBA avifauna is migratory and most species are also seasonal vagrants. Additionally, GRBA has a great variety of montane and lowland habitats making it difficult to conclude which species that are found in the general region are truly absent from the Park. It is therefore important to qualify the findings of this report by noting that, for birds, there is a very fluid continuum between NPS' definition of a vagrant (very rare and not documented every year), a migrant (may be rare but typically documented every year), and a resident (may be rare, but stays at least for 2 months in habitats of the Park). Only long-term monitoring will allow for any accuracy in these classifications.

RECOMMENDATIONS AND FUTURE WORK

Landbird monitoring should be continued as part of Great Basin Bird Observatory's point count network, the Nevada Bird Count. Great Basin National Park data could then be compared with data from other Parks and similar habitats.

To assist in Great GRBA's resource management planning, it is also recommended that the check list of status and abundance of the birds documented in this project for species of conservation concern for this region be examined. Resource management and monitoring efforts should address the needs of those species that are recognized as high priorities for the Intermountain West, the Great Basin, and Nevada by the national conservation initiative for landbirds, Partners In Flight.

Most owl species were listed as "Probably Present" in this report. Because of their nocturnal nature, owls are undercounted in most bird surveys and casual observations. It would be valuable to conduct nighttime surveys during their mating season to confirm which species occupy the Park. Also, poorwills and night-hawks are better assessed during night surveys than during typical birding activities. Several songbirds and other diurnal landbirds were surprisingly rarely recorded or confirmed, given the habitats present in the Park. It is also recommended that water bodies within the Park are visited regularly to determine the presence of additional ducks, shorebirds, or other waterbirds. Although species richness of these groups will likely never be high, there was uncertainty as to which of these species were actually present within the Park boundaries.

Project Synopsis

Partner: University of Nevada, Reno

Principal Investigator: Alan Gubanich

Documented: 139 Bird Species

Project Duration: 2003 - 2004

Cost: \$6,700