



MOJAVE NETWORK

Inventory Summary Report

INVENTORY OF BIRDS AT MOJAVE NATIONAL PRESERVE

INTRODUCTION AND OBJECTIVES

In 2001, a preliminary investigation of the presence or potential presence of vascular plants and vertebrate animals in Mojave National Preserve (MOJA) was completed by Todd Esque and James Andre. In 2003, the Mojave Network and Northern Arizona University conducted additional in-depth data mining activities on the occurrence of birds at MOJA and to review and update the NPSpecies database. This project aimed to build and expand upon previous work with the overall goal of increasing the level of documentation of the occurrence of birds in MOJA to at least 90% and to determine the accuracy of that documentation. Special attention was given to identifying all species of concern occurring in or near the Preserve. Investigators hoped these data-mining efforts would help build on baseline information needed to find gaps in the avian inventory that may require additional field investigations and also help develop an avian monitoring strategy for the Preserve.

METHODS

Data-mining efforts were used to find all data that recorded documentation of avian species within or in close proximity to the Preserve.

Literature searches - The libraries of 10 institutions, in addition to on-line journal archives, web sites, and the BLM National Library were searched using the keyword list created by Esque and Andre. The land within MOJA had been managed by several different agencies prior to its formation and it was necessary to search using a wide array of key words in order to find historic specimens collected in or near the Preserve.

Museum records - Museum records of bird specimens collected within or adjacent to the Preserve were obtained by querying on-line museum databases, or by making direct inquiries to museum curatorial staff. Regional museums or museums renowned for their ornithological collections were queried using the keyword list. All voucher records were assessed to verify if the collection location was within or near the current MOJA boundaries.

Observation records - Observation records were categorized as either informal observations or organized surveys. Informal observation records included unofficial surveys and checklists. Since the reliability of observational records can vary according to the observer, observational data were also categorized as being collected either by a qualified professional ornithologist or a hobbyist.

Organized surveys include data collected according to established methods or protocols recognized by the American Ornithological Union. Survey records collected during Breeding Bird Surveys 1970-2000 and Christmas Bird Counts 1967-1999, as well as surveys by BLM staff and hired contractors, were reviewed.



Turkey Vulture - NPS Photo, courtesy Neal Darby, MOJA

Upon documenting and compiling all data, avian records in NPSpecies were updated. Species status was listed as 'Present in the Preserve' if there was a reliable documented sighting within MOJA boundaries and it was determined to be a winter resident, summer resident, breeder, or migrant. If a species was documented just outside the Preserve boundaries, but was also likely to occur in the Preserve, it was documented as 'Probably Present'. Species were defined as 'Unconfirmed' if they could not be verified to occur in the Preserve. Abundance,



Golden Eagle - NPS Photo, Courtesy Neal Darby, MOJA

Residency, and Nativity were all determined based on the definitions in the NPSpecies dictionary and evaluation of the documented evidence. Subspecies designations were not recognized in this summary.

RESULTS AND DISCUSSION

A total of 433 bird records were evaluated and 300 species were confirmed to occur within MOJA. 19 species were determined to be probably present, and one species was documented as a historical record. With 103 still unconfirmed records, 74% of all potentially occurring bird species have been documented within MOJA. 64 species have been identified to use the Preserve for breeding, 42

species are identified as residents, 108 species are identified as migrants, and 27 species are vagrants. The residency status of 192 species is either unknown, exists outside the Preserve or is identified incorrectly. 192 records were found in six literature sources. One new species was documented within MOJA (Nuttall's Woodpecker) and one was documented outside MOJA (California Thrasher). 178 voucher records were found that provided documentation for 99 species. No species were added to the current list. Records from the Breeding Bird Surveys within MOJA report the occurrence of 68 species. Breeding Bird Surveys and Christmas Bird Counts near MOJA boundaries report the occurrence of 86 and 134 species, respectively.

Species of Concern - Five threatened or endangered species were found within or in the proximity of MOJA. Bell's Vireos, Willow Flycatchers and Yellow-billed Cuckoos have been periodically documented in riparian areas such as Piute Spring during migration, but have not been verified to breed within the Preserve. The limited riparian habitat that exists in MOJA may provide essential stopover habitat and resources during migration for each of these species since considerable geographic barriers exist in the region. Future inventory efforts should include these species and if they are documented, they should be included in future monitoring of each of these species and other riparian avifauna. The Bald Eagle and California Condor have also been detected in the vicinity of the Preserve, in recent years and historically, but their status in the Preserve is unknown. Additional inventory and future monitoring efforts are recommended to determine whether or not these species occur in the Preserve.

RECOMMENDATIONS AND FUTURE WORK

Most owl species were listed as "Probably Present." Due to 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.

Landbird monitoring in MOJA should be part of the monitoring plan for the Mojave Network. To assist in MOJA's resource management planning, it is 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 actions and monitoring efforts should take into account those species that are recognized as high priorities by the national conservation initiative for landbirds under the Partners In Flight Program.

Project Synopsis

Partner: Northern Arizona University
Principal Investigator: Matthew J. Johnson
Documented: 320 Bird Species
Project Duration: 2001 - 2007
Cost: \$10,840