

# Layout of Species Accounts

Information in each species account is presented in a structured, uniform template for ease of use. Here, we provide details about the species account layout and contents.

## 1. Conservation Profile

*Priority Status:* Conservation Species, Stewardship Species, or Special Status (Section 1, Methods)

*Species Concerns:* This is a summary of particular concerns that led to the species' ranking. It may include:

- a) Known or likely ongoing declines in populations
- b) Vulnerability because of restricted distributions or small population sizes
- c) Dependence on threatened habitat type(s)
- d) Known or likely threats to the species
- e) Listed as threatened or endangered under ESA, or a candidate for listing
- f) Stewardship:  $\geq 20\%$  of global population breeds in, or is otherwise dependent upon, Nevada

*Other Rankings:* Summary of rankings given to the species in other key planning initiatives. These initiatives are described in Section 1.1 (Methods). Included as well are species priority rankings internally assigned by the Bureau of Land Management (Sensitive Species), U.S. Fish and Wildlife Service (Bird of Conservation Concern, which is stratified by physiographic region; and "Migratory Birds" that are covered by the Migratory Bird Treaty Act of 1918), the Nevada Department of Wildlife in the Nevada Wildlife Action Plan (NDOW 2008; Conservation Priority), and the Nevada Natural Heritage Program (S – state-rankings).

*Trends:* Information about trends is typically derived from analyses of BBS data (Sauer et al. 2008), *Birds of North America* species accounts (Poole and Gill 1999-2004), regional bird conservation initiatives, and other published sources. We distinguish between "recent" trends (roughly the last half-century, which approximates the period since the mid-1960s when BBS data began to be collected) and "historical" trends, which occurred prior to this period. Where sufficient information is available on recent trends, we focus on regional rather than rangewide trends.

*Population Size Estimates:* As described in Section 5 of the Methods chapter, Nevada population estimates were derived from NBC data and from an analysis of BBS data (Rich et al. 2004), or from other published sources. For shorebirds and waterbirds, population estimates were obtained from the regional management plans (Ivey and Herziger 2006, Oring et al. 2003), or from an analysis of site specific Nevada surveys conducted by Larry Neel of the Nevada Department of Wildlife. Global population estimates were derived from Rich et al. (2004) for most landbirds, and from regional and continental plans for shorebirds and waterbirds. [Insert information re waterfowl population estimates when available]

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*Population Objective:* [Population objectives to be finalized, including rationale]

*Monitoring Coverage:* In cases where ongoing monitoring of the species is conducted, this



Rufous Hummingbird. Photo by Jacque Lowery

specifies the program or authority under which monitoring occurs, and also provides a subjective rating of coverage by current monitoring efforts (Very Good, Good, Fair, Poor).

*Key Conservation Areas:* This section lists the general regions, valleys, or mountain ranges in which we estimate that conservation action will be most effective. It is divided into “Protection”, which refers to species stronghold areas that need continuing or expanded protection, and “Restoration”, which refers to areas where historic populations were known, or likely, to be present that could be restored.

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## 2. Habitat Use Profile

*Main Habitats Used in Nevada:* List of major habitat types in which the species occurs in Nevada, listed in descending order of occupancy (Section 3, Methods).

*Key Habitat Use Parameters:* List of known habitat requirements and relationships, generally drawn from published literature or from Nevada-based data sets.

*Area Requirements:* This section lists minimum patch size requirements (if known), recommended patch sizes for conservation, and home range or territory size of populations in or near Nevada.

## 3. Natural History Profile

*Seasonal Presence in Nevada:* The seasons during which the bird is present in Nevada. Migrant presence may not be mentioned, unless Nevada is known to provide important stopover habitat for a species. In some cases, this section is subdivided to refer to different regions of the state (for instance a bird may have only a breeding presence in northern Nevada, but may both breed and overwinter in southern Nevada).

*Known Breeding Dates in Nevada:* Drawn primarily from breeding phenology data from the Nevada Breeding Bird Atlas project, supplemented by published sources, and improved by expert opinion from the planning panel. [At present, the known breeding dates include the period of mating, nesting, and brood rearing. Refinements of the draft will, wherever possible, more specifically identify the nesting period to distinguish from extended brood rearing periods typical of some species].

*Nesting Habits:* Drawn primarily from published literature.

*Food Requirements:* Drawn primarily from published literature. It includes a description of actual food items and foraging strategies.

### **Confidence Rankings in Conservation and Habitat Use Profile Tables:**

To indicate our estimate of how reliable or applicable the reported information is to Nevada, we developed a simple “high, medium, and low” ranking, indicated by dot sizes next to the information. This is not only to indicate to the reader how much confidence they may apply to the information provided, but also to provide an overview of how well-studied the conservation biology of the species at present. We hope that this helps identify data gaps that may be filled in future research projects or with expanded monitoring efforts.

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## 4. Overview

The Overview section highlights issues of unique interest with regard to each bird, and provides a location in which to highlight important information that may not otherwise fit well into the table templates on the first page. Reviewer contributions are welcome for additional noteworthy information important for conservation planning.

## 5. Abundance and Occupancy by Habitat

For landbirds that are well-sampled by NBC, this section includes our estimates of density in the habitat types occupied by the bird, along with proportional occupancy of transects within each habitat type (Section 5.3, Methods). Similar information is occasionally available for non-landbirds from other sources, as noted.

## 6. Nevada-Specific Studies and Analyses

This section focuses on primarily on statistical analyses of bird –habitat relationships in Nevada. Most of this information was generated by the analysis of NBC data for the species well-covered by that monitoring program. For other species, particularly shorebirds, waterbirds, owls, and gamebirds, little Nevada-specific statistical information usually exists, and we welcome any pointers from reviewers to sources we may have overlooked.

*Habitat Requirements:* Results of analysis of point-level NBC bird data and field-collected microhabitat data, as described in Section 5.2, Methods. Available for only a relatively small number of landbirds. Similar data may exist for other species, which is currently being researched and for which additional information from reviewers is welcome.

*Landscape Associations:* Results of analysis of transect-level NBC bird data and GIS landscape and habitat attributes, as described in Sections 4 and 5.1, Methods. Available for many landbirds that are reasonably numerous in Nevada.

*Other:* Nevada-specific statistical analysis of bird – habitat relationships from sources other than NBC. [Not much of this yet, probably more to come with in-depth literature review].

## 7. Main Threats and Challenges

Species-specific threats were developed primarily by the planning group, as described in Section 7 of the Methods. The resulting threats assessment was supplemented by published sources.

## 8. Conservation Strategies

Conservation strategies were developed by the planning group and supplemented with published sources. The resulting strategies were placed into the following categories.

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*Habitat Strategies:* Strategies that involve management, protection, or restoration of habitat. Included in this category are the umbrella habitat conservation strategies that are presented in the relevant Habitat Accounts. In many cases, these habitat strategies will suffice reasonably well to meet the highest-priority needs of the species that depend on these habitats. These general habitat conservation strategies are often supplemented by species-specific refinements and additions.

*Public Outreach Strategies:* Strategies that involve educating the public, seeking to increase public appreciation of and cooperation with conservation objectives, or managing public activities.

*Research, Planning, and Monitoring Strategies:* For several species, we need to gather more information about threats, trends, status, distribution, habitat requirements, or basic biology in order to identify the most effective approaches to conservation. This information may be gathered either through research studies, planning activities, or additional monitoring efforts, depending on the particular circumstances.

### 9. Other Species with Similar Conservation Strategies

Lists species that often co-occur and may be managed using similar approaches.

### 10. Further Reading

This section suggests a small number of important sources of information that will provide the reader with greater insight about the conservation of biology of the species in Nevada or nearby regions. This list intentionally excludes the key sources that cite repeatedly throughout the plan, but may include other conservation planning documents that provide a more in-depth picture of the species. [The process of generating these “Further reading” lists for all species is only partly finished, pending the completion of full literature review].



American White Pelican. Photo by Fred Petersen