

# Alpine



Alpine habitat on Wheeler Peak, White Pine County. Photo by Elisabeth Ammon.

## Key Bird-Habitat Attributes

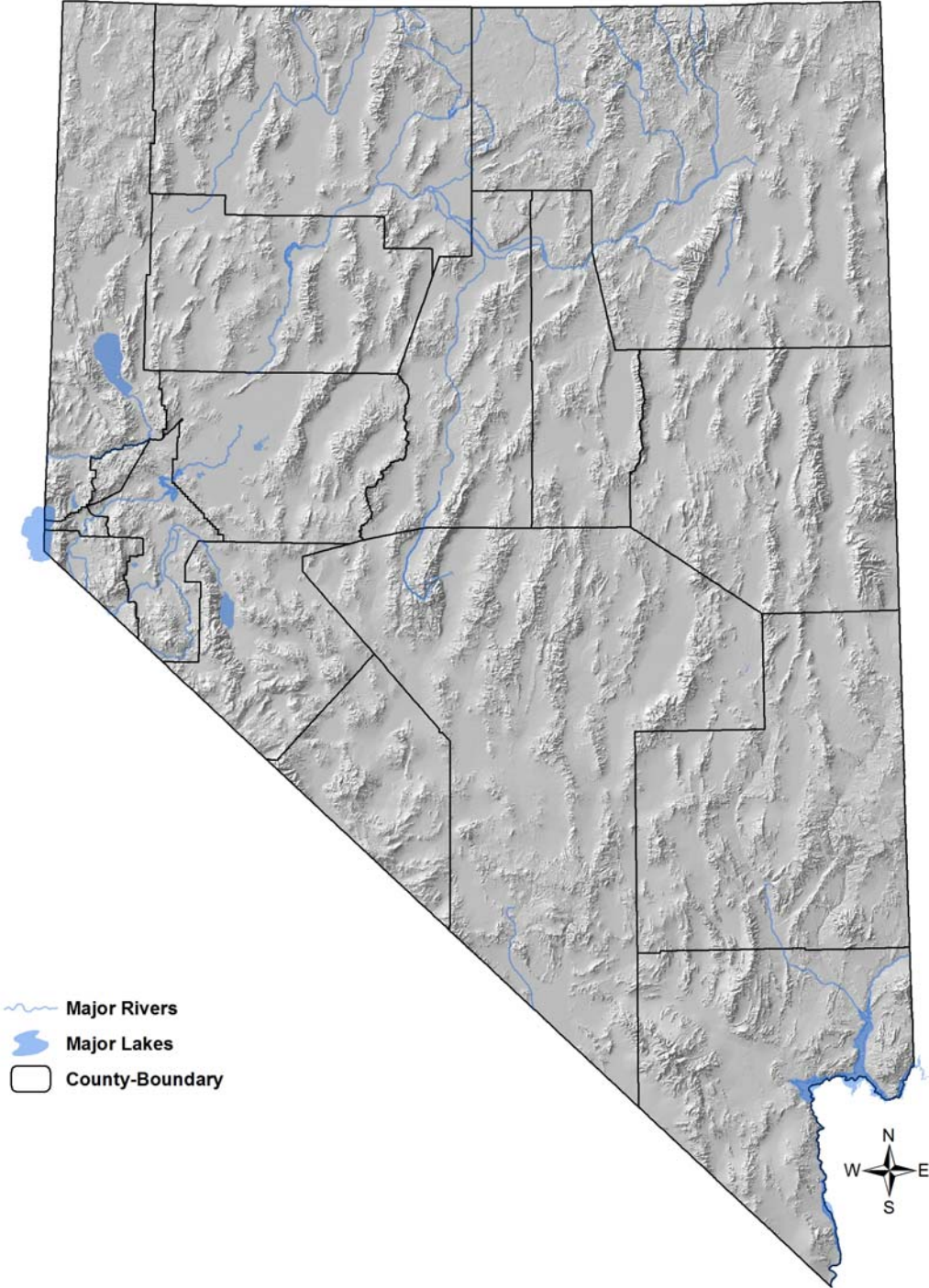
Vegetation Composition	Low-growing shrubs of multiple species, interspersed with snowpockets and talus;
Ideal Scale for Conservation Action	Whole patch on mountain top
Vegetation Structure	Mostly low-growing shrubs, but horizontal diversity (mosaic of different patches) increases value; forbs particularly beneficial
Distance to Water	Mesic habitat patches (snowpocket aspen, willows, and streams) increase habitat value
Other Features	Abandoned mineshafts and tall cliffs (>30 m, or 100 ft) add habitat value

## Conservation Profile

Estimated Cover in Nevada	789 ha (1,950 acres) < 0.01% of state
Landownership Breakdown	USFS = 70% NPS = 21% BLM = 7% Other = 2%
Priority Bird Species	Black Rosy-Finch (Golden Eagle)
Indicator Species	None
Past Impacts	No major ones known
Most Important Current Threats	Climate Change
Habitat Recovery Time	50-100 years
Regions of Greatest Conservation Interest	Northeastern and eastern Nevada mountain ranges, and Carson Range
Important Bird Areas	Ruby Mountains, Jarbidge Range, Great Basin National Park, Northern Snake Range, Carson Range, Mount Grant

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Alpine birds and their habitats have been studied very little in Nevada, and therefore not much is known about their conservation needs. Traditionally, few land uses have occurred in the alpine zone due to the generally difficult access, long periods of snowpack, and low productivity of alpine vegetation. Similarly, major disturbance regimes such as fire play little or no role in maintaining alpine vegetation, which affords fairly stable conditions during their short growing season. As a result of these conditions, alpine vegetation requires an enormous recovery time after destruction. A dense understory of forbs and grasses is probably critical to wildlife using alpine areas, as many depend on these plants directly, or on the insects supported by them. Most alpine areas in Nevada are small and isolated, and the main priority species, the Black Rosy-Finch, occurs in the largest patches of the eastern and northeastern regions of the state. Many of these are naturally protected due to their isolation, but some areas may be used for recreation and mining activities. The primary threat to these habitats is climate change which threatens to eliminate alpine areas from the Great Basin due to warming trends.

## Conservation Strategies

### Habitat Strategies

1. Manage at a landscape scale of the whole mountaintop's alpine zone, if possible, with connectivity to adjacent vegetation types (coniferous forest, montane shrubs, montane riparian, aspen). High shrub species diversity, high patch type diversity, and a healthy forb component all promote use by priority bird species.

### Public Outreach

1. Public education about climate change and the importance of winter precipitation to both alpine communities and all other mesic communities.

### Research, Planning, and Monitoring

1. Monitoring rate of change of alpine communities in a changing climate would be useful, but mitigation options are probably minimal. However, research that explores mitigation opportunities would be a high priority.