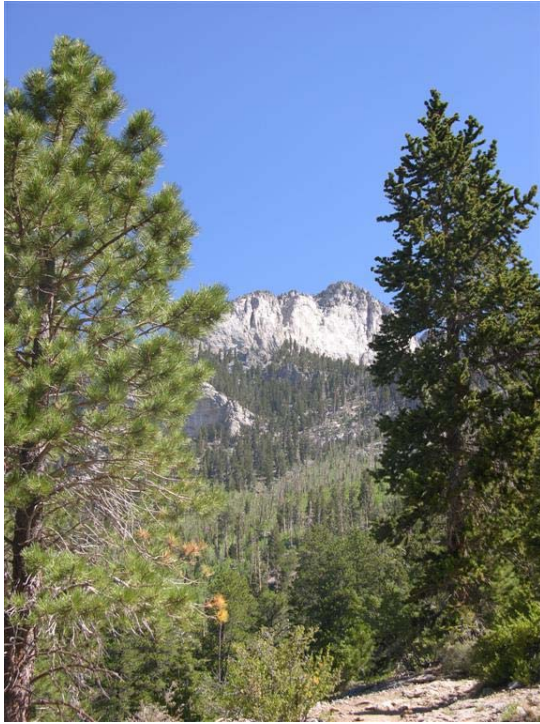


Coniferous Forest



Coniferous Forest near Mt. Charleston, Spring Mountains, Clark County. Photo by John Boone.

Key Bird-Habitat Attributes

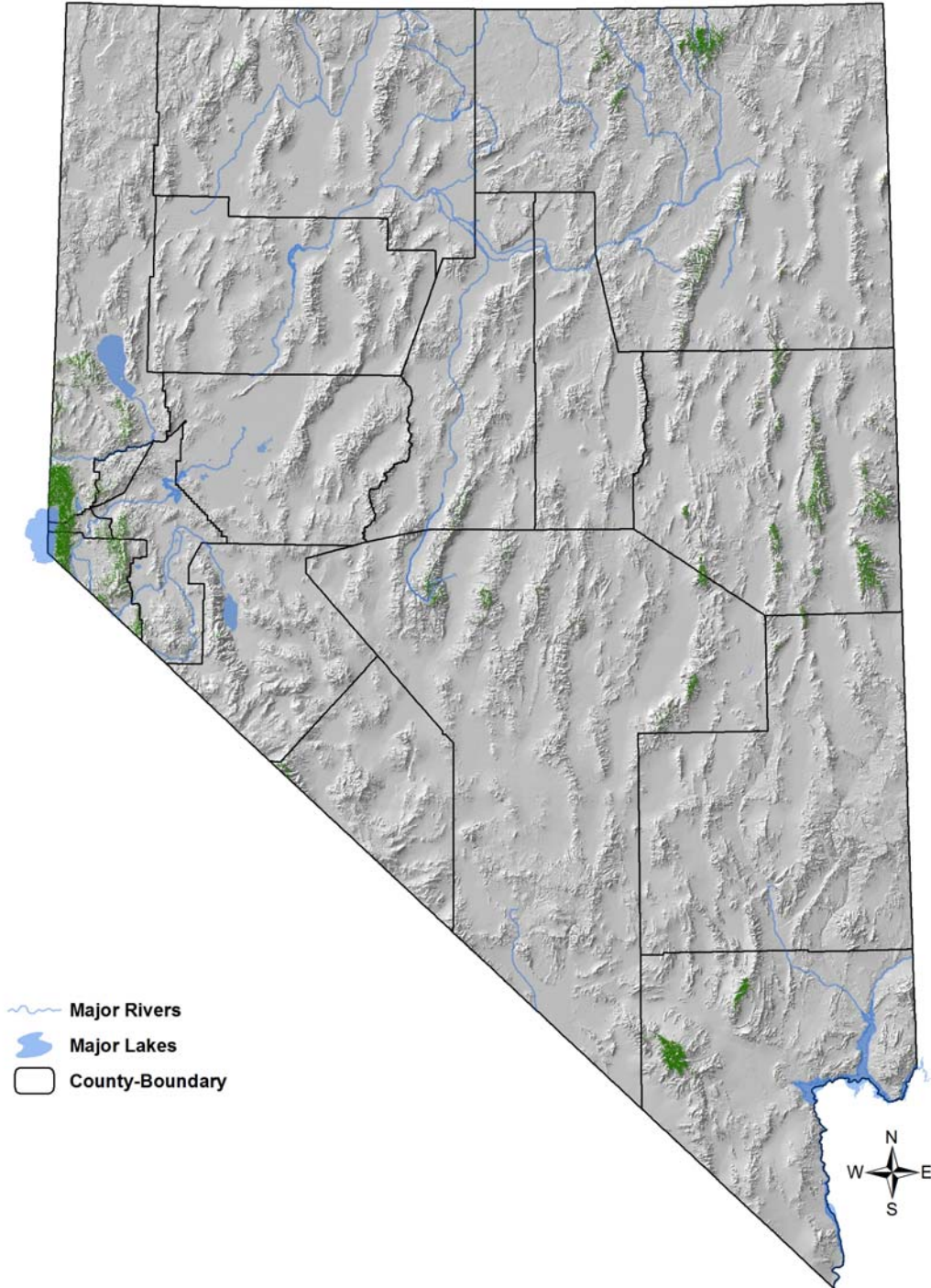
Stand Structure	Multi-aged stands with mosaic of open canopy patches with shrub understory, small aspen patches, and occasional dense-canopy groves; mosaic within forest may vary at 2-5 ha scale or larger
Ideal Scale for Conservation Action	500 ha (1,100 acres) or more
Plant Species Composition	Stands with 3 or more coniferous species, e.g., white pine, white fir, Jeffrey pine, lodgepole pine, and limber pine, better than monotypic stands; large-seeded conifers particularly valuable to birds; forbs, deciduous shrubs, and multiple species of xeric shrubs in the understory or in openings
Plant Condition	Healthy trees with seed crops beneficial, but snags (>12 " DBH) of both conifers and deciduous trees also important
Distance to Riparian/Spring Habitats	Proximity of water-dependent habitat increases value to birds
Presence of Cliffs > 30 m (100 ft) Tall	Presence of tall cliffs increases value to birds

Conservation Profile

Estimated Cover in Nevada	222,400 ha (550,000 acres) 0.8% of state
Landownership Breakdown	USFS = 58% BLM = 20% Private = 13% Other = 9%
Priority Bird Species	Northern Goshawk Spotted Owl Flammulated Owl Dusky Grouse Sooty Grouse Band-tailed Pigeon White-headed Woodpecker Williamson's Sapsucker Rufous Hummingbird Calliope Hummingbird Olive-sided Flycatcher (Golden Eagle) (White-throated Swift)
Indicator Species	None needed
Past Impacts	Timber Harvest Insect Outbreaks Altered Fire Regime
Most Important Threats	Climate Change Altered Fire Regime Urban Encroachment Insect Outbreaks
Recovery Time	50-100 years
Regions of Greatest Conservation Interest	Carson, Jarbidge, Ruby, Snake, Schell Creek ranges, Spring Mountains
Important Bird Areas	Carson Range, Northern Snake Range, Great Basin National Park, Jarbidge Range, Ruby Mountains, Spring Mountains

Coniferous Forest

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Coniferous forests are relatively sparse on the Nevada landscape, with less than one percent of its total landcover. As a result, this habitat type has been relatively exempt from the traditional threat of commercial timber harvest that is present in other western regions, and today, no commercial timber harvest occurs in the state. Other threats, such as increased frequency of catastrophic fires, urban encroachment, and insect outbreaks have become the main concerns for maintaining native bird communities in this habitat type.

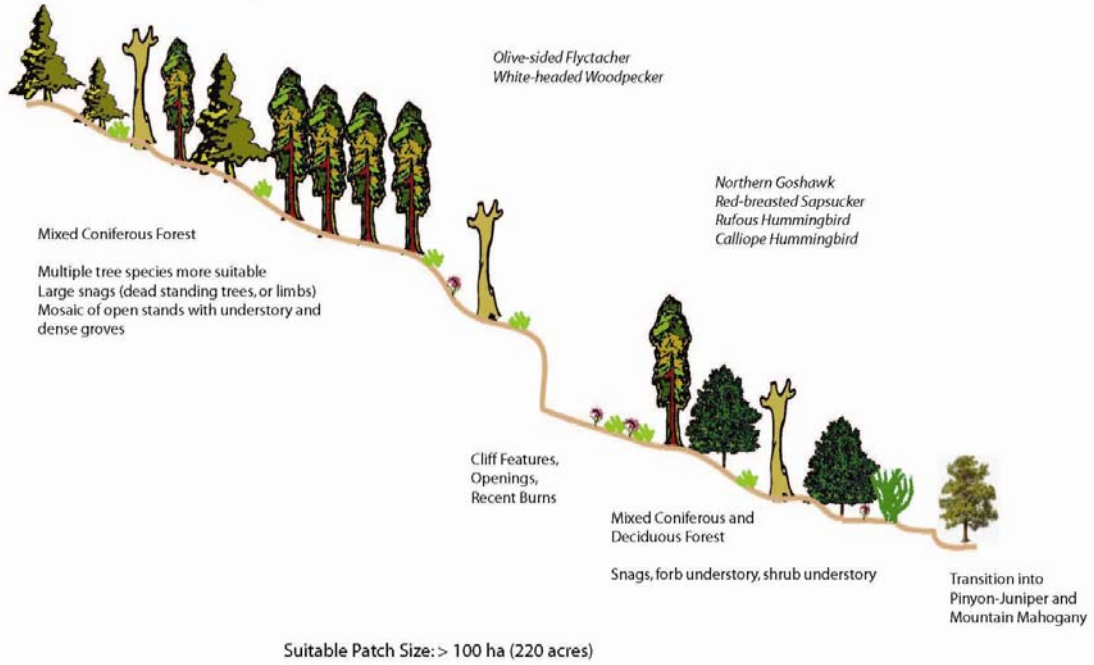
The large number of priority species that rely on coniferous forests have a fairly intricate set of habitat requirements. The Flammulated Owl, one of the better-studied species on the priority species list, and its habitat requirements serve well as a basic vision for overall good coniferous forest management. Mixed species stands that have a component of deciduous trees and understory plants appear to work best for this and most other priority species. A horizontal mosaic of patches within the stand, varying at a 2-5 ha or greater scale, may be necessary to maintain all priority species present. For instance, the Grace's Warbler, which resides in coniferous forests of the Mojave region selects open park-like stands of old-growth conifers with an understory. Other species, such as Williamson's Sapsucker respond to the presence of large snags and a component of deciduous trees and shrubs, especially aspen and willows. Olive-sided Flycatchers are primarily found at the edges of forest openings. Yet other species require groves of young, closed-canopy for roosting. For these reasons, forests may be managed at a very large scale to accommodate the various stand structures, age classes, tree densities, and understories in a landscape mosaic.

Coniferous Forest

Coniferous Forest

Not to Scale

Dusky Grouse
Sooty Grouse
Band-tailed Pigeon
Flammulated Owl
Spotted Owl



Coniferous Forest

Conservation Strategies

Habitat Strategies

1. Manage at landscape scale (> 500 ha or 1,100 acres) with the goal of maintaining a diverse mosaic of patches within the forest, allowing for dense, young stands of conifers, open old-growth stands with shrub understory, large snags, deciduous tree components (especially aspen and willow) and forest openings.
2. Fire management should include strategies to allow fire, but that avoid catastrophic events to the extent possible. Active reforestation with native species appropriate for the region and elevation is desirable.

Public Outreach

1. Promote public appreciation of healthy coniferous forests and their bird community.

Research, Planning, and Monitoring

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