

# Band-tailed Pigeon

*Columba fasciata*



Photo by Steve Ting

## Habitat Use Profile

Habitats Used in Nevada	
Coniferous Forest	
Key Habitat Parameters •	
Plant Composition	Mixed-conifer, including white fir, ponderosa pine, Jeffrey pine, red fir, lodgepole pine; may also use pinyon, juniper, manzanita, oak <sup>4</sup>
Plant Density & Size	150 - 500 trees / ha [60 – 200 trees / ac] <sup>1</sup> ; typical dbh 16-32 cm [6-12 in] <sup>4</sup> ; nests more likely where canopy closure and tree height are greater than average for the area <sup>3</sup>
Shrub Understory	Not required <sup>4</sup>
Distance to Water	Unknown
Response to Vegetation Removal	Probably negative to overstory removal, neutral to understory <sup>E0</sup>
Area Requirements •	
Minimum Patch Size	Unknown
Recommended Patch Size	Entire mountain range <sup>E0</sup>
Home Range	Typically 11,000 ha [27,000 ac]; range 300 – 180,000 ha [750 – 450,000 ac] <sup>4</sup>

## Conservation Profile

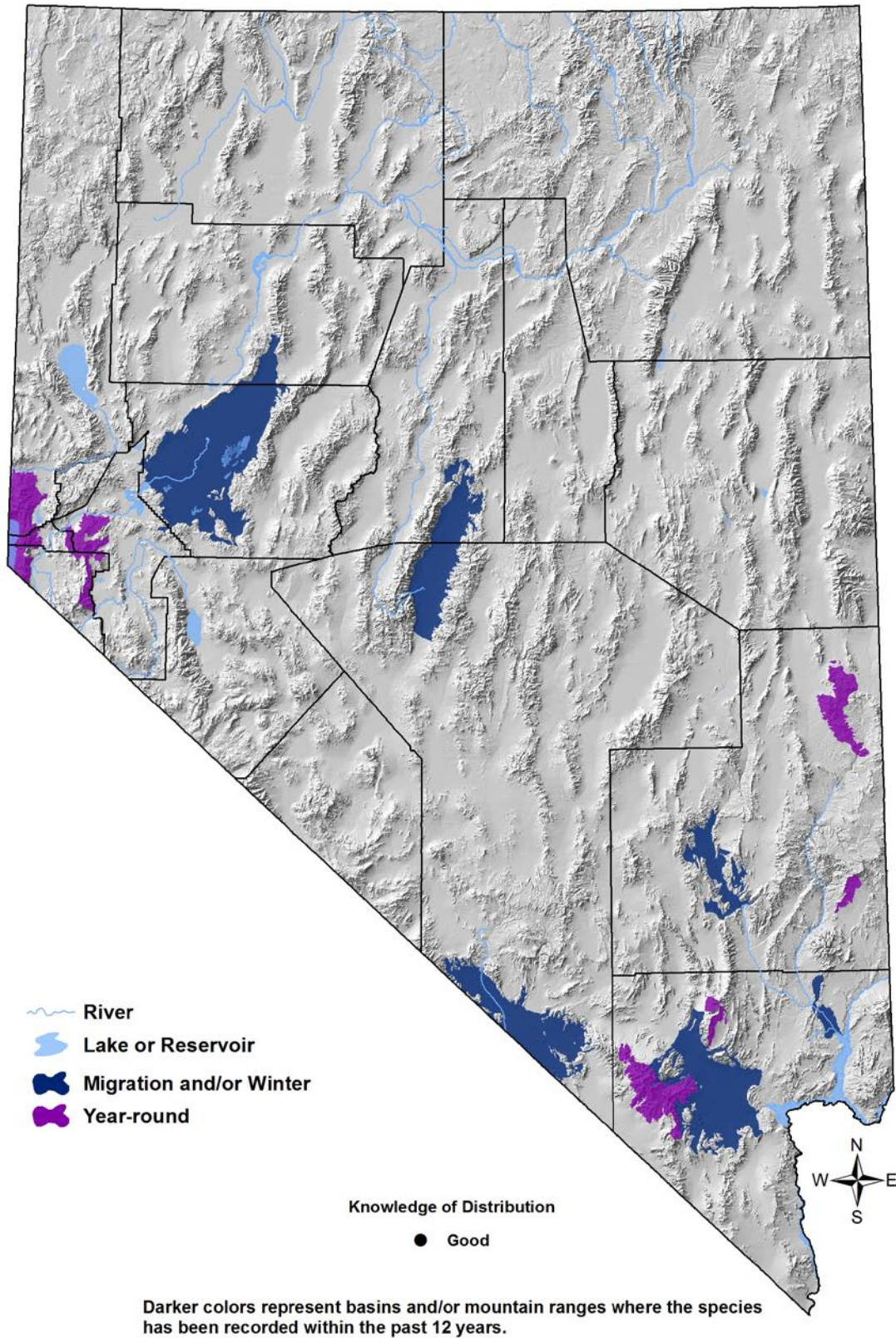
Priority Status	
Conservation Priority Species	
Species Concerns	
Historical and recent declines Small population size Habitat threats	
Other Rankings	
Continental PIF	Watch List
Audubon Watchlist	None
NV Natural Heritage	S3
USFWS	Migratory Bird
BLM	None
USFS	None
NDOW	Upland Gamebird
Trends	
Historical •	Rangewide declines <sup>4</sup>
Recent •	In West, annual decline of 1.4 - 2.1% <sup>8</sup>
Population Size Estimates	
Nevada (NBC) •	615
Global •	970,000 <sup>7</sup>
Percent of Global	< 1%
Population Objective	
Maintain / Increase <sup>E0</sup>	
Monitoring Coverage	
Source	Nevada Bird Count
Coverage in NV	Fair
Key Conservation Areas	
Protection	Carson Range, Spring Mountains
Restoration	Carson Range

## Natural History Profile

Seasonal Presence in Nevada	
Year-round (with seasonal movements)	
Known Breeding Dates in Nevada	
Mid May – October <sup>2</sup>	
Nest and Nesting Habits	
Nest Placement	Tall conifer limb, often facing S/SW, with open flyway to nest <sup>4</sup>
Site Fidelity	Probably moderate <sup>4</sup>
Food Habits	
Basic	Arboreal gleaner <sup>3</sup>
Primary Diet	Fruits, grains, acorns, pine nuts <sup>4</sup>
Secondary Diet	Flowers and buds of trees and shrubs <sup>4</sup>
Other	Grit, mineral salts, and salt licks required; feeders may be visited <sup>4</sup>

# Band-tailed Pigeon

*Columba fasciata*



# Band-tailed Pigeon

*Columba fasciata*

## Overview

The Band-tailed Pigeon presents a conservation dilemma that is fortunately unusual; that of a species undergoing a steady decline for which there is no confirmed (or even plausibly hypothesized) explanation. Because of this species' very large home range requirements, however, it seems possible that landscape-level changes in habitat mosaics may play an important role. There are two distinct populations (subspecies) of Band-tailed pigeon that enter Nevada at opposite ends of the state. They are concentrated in the coniferous forests of the Carson Range and the Spring Mountains. They also occur patchily around the margins of the state, but appear to be mostly absent from the central region as breeders. In winter, they engage in downward elevational movements and occur across a somewhat wider geographic area. Given the prospect of continuing declines, and the lack of a specific explanation for these declines, a significant effort at expanded monitoring and research is warranted. Each population has its own management plan, developed by the Pacific and Central Flyways.<sup>6</sup>

## Abundance and Occupancy by Habitat

### Birds / 40 ha on NBC Transects in the Great Basin and Mojave Regions

Primary Habitat at Transect	Transects Occupied	Birds/40 ha (95% C.I.)
<b>Great Basin</b>		
Coniferous Forest	26% (5/19)	1.0 (0.2 – 1.8)
<b>Mojave</b>		
Coniferous Forest	50% (2/4)	0.2 (n/a)

- BBS-derived Nevada population estimate (7,500 birds)<sup>7</sup> is much larger than the NBC estimate (615)

## Nevada-Specific Studies and Analyses

No information

## Main Threats and Challenges

### Habitat Threats

- Causes of observed declines not well understood range-wide or in Nevada, but given the Band-tailed Pigeon's exceptional large home range requirements, landscape-level changes may play a role<sup>EO</sup>

# Band-tailed Pigeon

*Columba fasciata*

## Research, Planning, and Conservation Challenges

- Management of these birds is especially challenging. It is difficult to reliably estimate population size because of the difficulty in locating and observing pigeons.<sup>6</sup>
- Lack of information about causes of ongoing population declines

## **Conservation Strategies**

### **Habitat Strategies**

- Until further information is gathered, it is assumed that the Coniferous Forest habitat conservation strategy (p. Hab-5-1) benefits this species
- Maintain a forest mosaic that includes older-aged closed-canopy patches interspersed with open-canopy patches and forest openings
- Providing supplemental salt / mineral blocks may be beneficial

### **Research, Planning, and Monitoring Strategies**

- Improve monitoring coverage to confirm population trends and more accurately determine occupied range and population size; several potential monitoring protocols have been tested in Arizona.<sup>5</sup> Monitoring strategies at mineral sources developed for Pacific populations<sup>1</sup> do not work as well for interior populations, which do not visit mineral deposits as regularly
- Conduct research to better determine habitat needs, area requirements, and causes for declines
- Investigate incidence of disease and disease vulnerability

### **Public Outreach Strategies**

- None identified

References: <sup>1</sup>Cassaza et al. (2005); <sup>2</sup>GBBO unpublished Atlas data; <sup>3</sup>Hughes (2007); <sup>4</sup>Keppie and Braun (2000); <sup>5</sup>Kirkpatrick et al. (2005); <sup>6</sup>Pacific Flyway Study Committee (2001); <sup>7</sup>Rich et al. (2004); <sup>8</sup>Sauer et al. (2009); <sup>EO</sup> Expert opinion