



Band-tailed Pigeon, photo by ©Robert Shantz

Conservation Profile

Species Concerns	
Catastrophic Fires	
Conservation Status Lists	
USFWS ¹	No
AZGFD ²	Tier 1C
DoD ³	No
BLM ⁴	No
PIF Watch List ^{5b}	Yellow List
PIF Regional Concern ^{5a}	None
Migratory Bird Treaty Act	
Covered	
PIF Breeding Population Size Estimates ⁶	
Arizona	40,000 ●
Global	6,100,000 ●
Percent in Arizona	.65%
PIF Population Goal ^{5b}	
Reverse Decline	
Trends in Arizona	
Historical (pre-BBS)	Unknown
BBS ⁷ (1968 – 2013)	-2.57/year ●
PIF Urgency/Half-life (years) ^{5b}	
> 50	
Monitoring Coverage in Arizona	
BBS ⁷	Not adequate
AZ CBM	Not covered
Associated Breeding Birds	
Acorn Woodpecker, Mexican Jay, White-breasted Nuthatch, Yellow-rumped Warbler, Black-throated Gray Warbler, Hepatic Tanager	

Breeding Habitat Use Profile

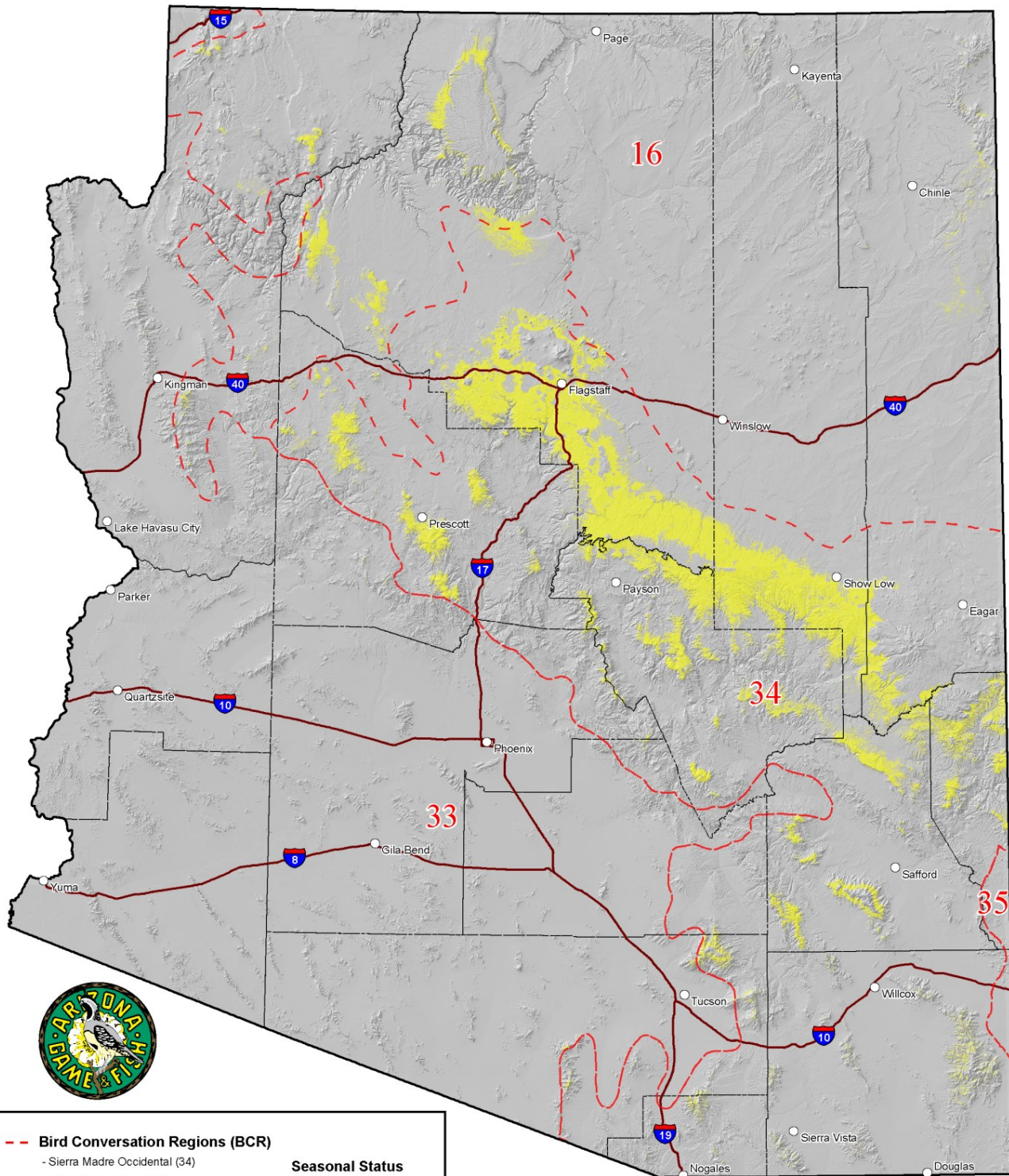
Habitats Used in Arizona	
Primary: Mixed Conifer-Aspen Forest Secondary: Pine Forest and Madrean Pine-Oak Woodlands	
Key Habitat Parameters	
Plant Composition	Mixed conifer and pine-oak, including white fir, Douglas fir, ponderosa pine, Gambel oak; Madrean pine-oak: evergreen oaks, Chihuahua and Apache pines ⁸
Plant Density and Size	60 – 200 trees/ac ⁹ ; typical DBH 6 – 12 inches ⁸ ; nests more likely where canopy closure and tree height are greater than average for the area ¹⁰
Microhabitat Features	Berry-producing shrubs and oaks enhance habitat; but well-developed shrub understory not required ⁸
Landscape	Wide-ranging or nomadic; may forage long distances from nest; area requirements unknown
Elevation Range in Arizona	
4,800 – 9,400 feet ¹¹	
Density Estimate	
Home range: 750 – 450,000 acres (reported in Oregon) ⁸ Density: unknown	

Natural History Profile

Seasonal Distribution in Arizona	
Breeding	Mid-April – August ¹¹ ; occasionally later
Migration	April – May; September – October
Winter	Irregular or absent November – March
Nest and Nesting Habits	
Type of Nest	Platform ⁸
Nest Substrate	Fir, pine, or oak ⁸
Nest Height	18 – 35 feet ¹²
Food Habits	
Diet/Food	Fruits, acorns, pine nuts ⁸
Foraging Substrate	Ground, fruit-bearing trees, and shrubs ⁸



Distribution of Band-tailed Pigeon



- Bird Conservation Regions (BCR)**
 - Sierra Madre Occidental (34)
 - Chihuahuan Desert (35)
 - Sonoran & Mojave Deserts (33)
 - Southern Rockies & Colorado Plateau (16)
- | | | |
|------------------------|--|---------------|
| Seasonal Status | | Breeding Only |
| | | Counties |

This map represents the predictive distribution for an individual species. AZGFD warrants no guarantees of accuracy or currency of the data represented.



General Information

Distribution in Arizona

In Arizona, Band-tailed Pigeons breed in the forested highlands from the northwestern corner of the state to the southeastern sky islands and locally on Navajo Nation lands in the northeast (Martin 2005). They winter largely south of the Mexico border, but depending on local food resources, some winter irregularly in southeastern, and less frequently, central Arizona (Keppie and Brown 2000).

Habitat Description

Band-tailed Pigeons occur in montane mixed conifer, Madrean pine-oak, pinyon-juniper and Gambel oak mixed with ponderosa pine, as well as pure ponderosa pine stands, but they are generally absent from the latter if a major oak component is missing (Martin 2005). In high elevations of Arizona they occupy forests with pine, Douglas fir, and spruce-fir communities that have berry-producing shrubs, as well as oak or pinyon pine. In northern Arizona, nesting habitat consists of 16 – 67% canopy cover that includes nesting trees with 5.5 – 36.5 inches DBH (Blackman et al 2013). Band-tailed Pigeons feed on acorns, manzanita fruits, elderberry, and berries (Monson and Phillips 1981). In southeastern Arizona, they occasionally forage in chaparral, riparian woodlands, desert grassland, and Sonoran desert scrub (Braun et al. 1975).

Microhabitat Requirements

Interior Band-tailed Pigeon populations nest primarily in tall conifers, such as ponderosa pine and Douglas fir, and in taller oaks. Band-tailed Pigeons are almost entirely vegetarian and they primarily forage on fruits and nuts forest trees during nesting (Keppie and Brown 2000). Several studies also report the use of mineral springs and salt blocks, which may contain essential nutrients.

Landscape Requirements

Little is known about the area requirements, landscape settings, and disturbance distances needed by Band-tailed Pigeons. Until further details are studied, it is advisable to protect large landscapes that contain suitable habitats for this species.



Conservation Issues and Management Actions

Population Decline

Band-tailed Pigeons are declining range-wide at a rate of 2% per year, which appears to be driven mostly by interior populations that are declining at a rate of 3 – 5% per year (Sauer et al. 2016). Causes of these declines are unknown, though clear-cutting, control of understory vegetation, and use of herbicides are suspected to play a role (Braun 1994). The Pacific Flyway Study Committee’s management plan calls for additional research of population status, trends, and recruitment, and of food habits, mineral requirements, and habitat needs (Braun 1994).

Threats Assessment

This table is organized by Salafsky et al.’s (2008) standard lexicon for threats classifications. Threat level is based on expert opinion of Arizona avian biologists and reviewers. We considered the full lexicon but include only medium and high threats in this account.

Threat	Threat Level
<i>Residential and Commercial Development</i> <ul style="list-style-type: none"> • Housing and urban areas 	Medium
<i>Biological Resource Use</i> <ul style="list-style-type: none"> • Hunting and collecting terrestrial animals • Logging and wood harvesting 	Medium
<i>Natural System Modifications</i> <ul style="list-style-type: none"> • Fire and fire suppression 	High
<i>Climate Change</i> <ul style="list-style-type: none"> • Ecosystem encroachment • Changes in precipitation and hydrological regimes 	Medium

In the following section we provide more detail about threats, including recommended management actions. Threats with similar recommended actions are grouped.

Residential and Commercial Development:

- Housing and urban areas

Biological Resource Use:

- Hunting and collecting terrestrial animals
- Logging and wood harvesting

Climate Change:

- Ecosystem encroachment
- Changes in precipitation and hydrological regimes



Recommended Actions:

1. Encourage short duration local hunting seasons and delay them until after 15 October, when most Band-tailed Pigeon young have fledged in Arizona.
2. Identify areas frequently occupied by Band-tailed Pigeons and maintain current habitat.
3. Avoid clear-cutting, extensive fire wood harvesting, and other land uses that reduce oaks and berry-producing shrubs in occupied areas.
4. Avoid salvage-logging in occupied areas until effects on Band-tailed Pigeons are understood.
5. Maintain a forest mosaic that includes older-aged, closed-canopy patches interspersed with open-canopy patches and forest openings.
6. Provide supplemental salt or mineral blocks for Band-tailed Pigeons.

Natural System Modifications:

- Fire and fire suppression

Recommended Actions:

1. Manage fuel loads to avoid catastrophic fires while maintaining berry-producing shrubs and oaks.
2. Limit prescribed burns in occupied areas where berry-producing shrubs, such as manzanita and madrone, could be negatively affected.

Research and Monitoring Priorities

1. Continue and expand monitoring coverage of Band-tailed Pigeon populations in Arizona to determine trends and occupancy patterns.
2. Delineate and characterize vegetation and spatial parameters of occupied areas to clarify habitat needs and area requirements.
3. Determine effects of salvage logging on Band-tailed Pigeon populations.
4. Monitor adult and juvenile Band-tailed Pigeon vital rates to understand why the population appears to be declining.
5. Review and determine if the recommended management strategies provided in the Pacific Flyway Council's species management plan for the Pacific Coast Band-tailed Pigeon population apply to Interior Band-tailed Pigeons and implement in Arizona those that make sense (Pacific Flyway Council 2010).

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Recommended Citation

Arizona Bird Conservation Initiative and Sonoran Joint Venture. 2023. Band-tailed Pigeon (*Patagioenas fasciata*) Species Account. Available at <https://sonoranjv.org/accounts/band-tailed-pigeon.pdf>.

