Gilded Flicker, photo by ©Dave Krueper

Conservation Profile

Species Concerns
Climate Change (Drought)
Urbanization
Increasing Fire Frequency
Invasive Species

Conservation Status Lists	
USFWS[1]	BCC List (BCR 33)
AZGFD[2]	Tier 1B
DoD[3]	Yes
BLM[4]	Sensitive Species
PIF Watch List[5b]	Yellow List
PIF Regional Concern[5a]	Reg. Concern BCR 33/34 and Stewardship Species BCR 33

Migratory Bird Treaty Act
Covered

PIF Breeding Population Size Estimates[6]	
Arizona	190,000 ◑
Global	770,000 ◑
Percent in Arizona	24.67%

PIF Population Goal[5b]
Reverse Decline

Trends in Arizona	
Historical (pre-BBS)	Declines on lower CO River[8]
BBS[7] (1968 – 2013)	-2.02/year ●

PIF Urgency/Half-life (years)[5b]
33

Monitoring Coverage in Arizona	
BBS[7]	Adequate
AZ CBM	Adequate

Associated Breeding Birds
White-winged Dove, Western Screech-Owl, Elf Owl, Gila Woodpecker, Brown-crested Flycatcher, Verdin, Black-tailed Gnatcatcher, Phainopepla, Lucy's Warbler

Breeding Habitat Use Profile

Habitats Used in Arizona	
Primary: Sonoran Desertscrub	
Secondary: Lowland Riparian Woodlands	
Key Habitat Parameters	
Plant Composition	Columnar cactus, especially saguaro; ironwood, paloverde, graythorn, desert hackberry, and mesquite; locally cottonwood/willow[9]
Plant Density and Size	Most abundant in high density saguaro forests
Microhabitat Features	Saguaros > 16 feet tall, but > 23 feet tall with ≥ 6 arms preferred[9]; estimated DBH of cavity trunk > 11 inches; uses anthills
Landscape	Saguaro desert patches unoccupied if < 50 acres, but > 240 acres ideal[11]; other important landscape variables unknown

Elevation Range in Arizona
200 – 3,200 feet (locally to 4,600 feet)[8,9]

Density Estimate
Territory Size: 100 – 200 acres
Density: 1.4 nests/25 acres[9]

Natural History Profile

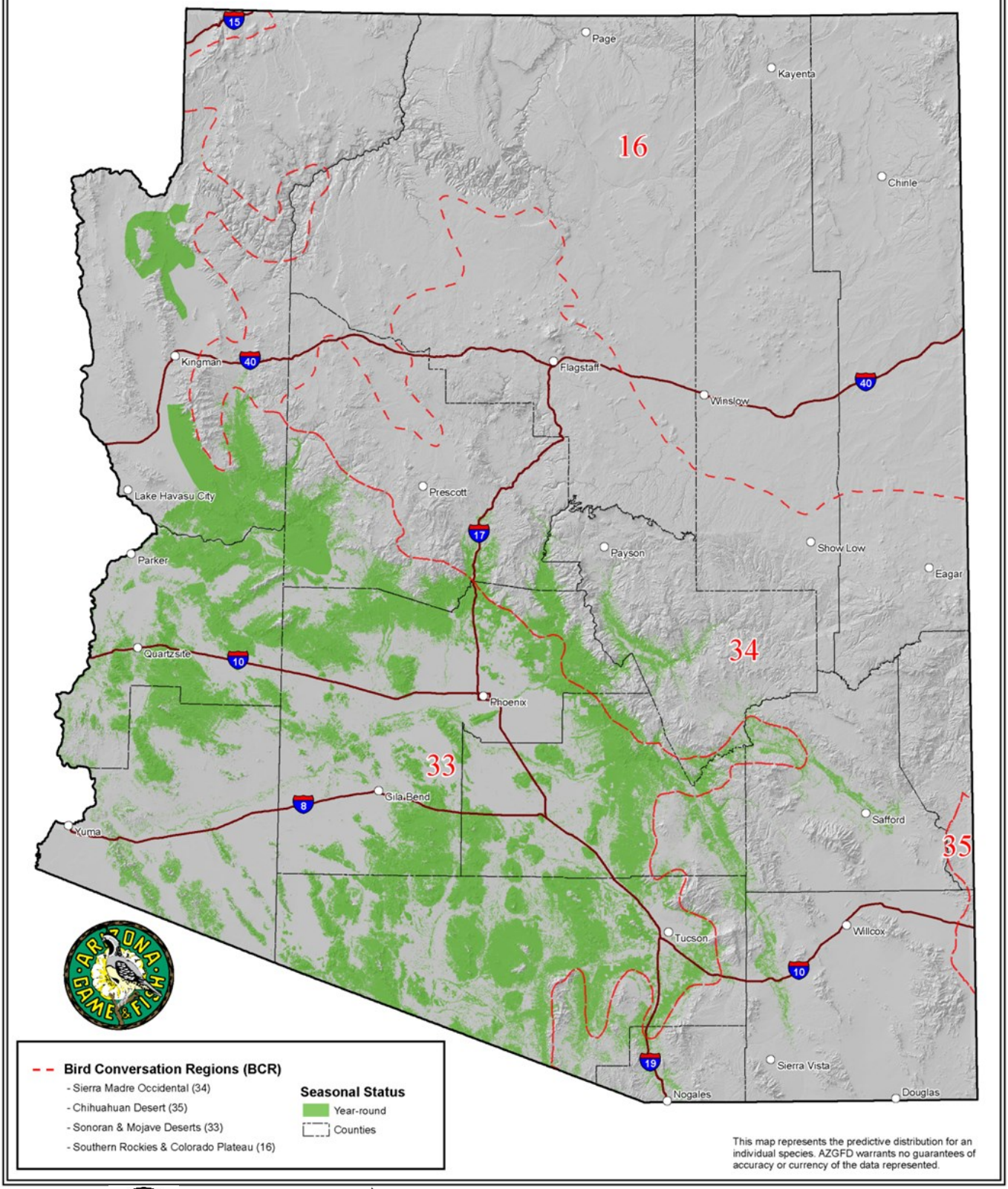
Seasonal Distribution in Arizona	
Breeding	Mid-March – early July[8]
Migration	Year-round resident
Winter	Year-round resident
Nest and Nesting Habits	
Type of Nest	Excavates cactus/tree cavity
Nest Substrate	Saguaro or large tree[9]
Nest Height	6 – 28 feet;[9,10] within 10 feet of top[8]
Food Habits	
Diet/Food	Omnivorous, but primarily ants and other insects[9]
Foraging Substrate	Ground

SPECIES ACCOUNT ● *GILDED FLICKER Colaptes chrysoides*

Confidence in Available Data: ● High ◑ Moderate ○ Low ^ Not provided

Last Update: April 2023

Distribution of Gilded Flicker



General Information

Distribution in Arizona

Gilded Flicker distribution in Arizona is tightly associated with the Sonoran Desert biome that occupies much of southwestern Arizona (Corman 2005). The species becomes increasingly scarce toward the southeastern corner of the state. Historically, Gilded Flickers occupied riparian areas along the main-stem of the lower Colorado River, where they are now extremely rare (USBR, pers. comm.) The species is non-migratory, but there is some post-breeding dispersal.

Habitat Description

Throughout much of their range, Gilded Flickers are confined to desertscrub with large cactuses. In Arizona they typically use saguaros for nesting and roosting. Associated trees and shrubs which also often occur include ironwood, paloverde, graythorn, desert hackberry, and mesquite (Kerpez and Smith 1990, Moore 1995). They use riparian areas locally where large saguaros are not available, and where gallery forests provide opportunities for nest cavities. Riparian areas may also play an important role in the post-breeding season (GBBO, pers. comm.) Current populations are mostly restricted to saguaro landscapes (Corman 2005). Little is known about Gilded Flicker winter habitat use, but the species occupies the same general areas as for nesting (Moore 1995).

Microhabitat Requirements

For saguaro nest cavities, Gilded Flickers prefer cactuses 16 feet or taller, particularly those that are > 23 feet tall with at least six arms (Kerpez and Smith 1990). They also make riparian nest cavities in mature Fremont cottonwood and Goodding's willow (Corman 2005). Diameters of nest trees or cactuses have not yet been reported, but are estimated to be 12-18 inches or larger DBH (based on DBHs used by Northern Flickers, Moore 1995). Gilded Flickers forage primarily on ants and other ground-inhabiting insects (Moore 1995).

Landscape Requirements

Gilded Flickers require 30-50% native vegetation cover at the landscape scale (Turner 2006). They are very sparse and local in urban settings; researchers in the Phoenix area found them typically absent from habitat patches < 50 acres but present in appropriate habitat patches > 240 acres (Clark 2011). This suggests that the species is area sensitive at a landscape scale. Area requirements in riparian settings, disturbance distances, and other responses of Gilded Flickers to landscape changes are unknown.

Conservation Issues and Management Actions

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	Details	Threat Level
Residential and Commercial Development • Housing and urban areas • Commercial and industrial areas	Commercial and industrial areas are probably the largest threat, contributing to loss of saguaro uplands habitat from development	High
Energy Production and Mining • Renewable Energy	Conversion of desert habitat to solar panel fields	Medium
Transportation and Service Corridors • Roads and railroads	Includes I-10 bypass that would cut through desert habitat – species is sensitive to disturbance	Medium
Natural System Modifications • Other ecosystem modifications • Fire and fire suppression	Wildfires fueled by invasive exotic grasses and forbs often kill or damage saguaros and trees	High
Invasive and Problematic Species • Invasive non-native/alien plants	Sonoran Desert habitat is highly susceptible to very damaging wildfires fueled by invasive grasses and forbs	High
Climate Change • Ecosystem encroachment • Changes in temperature regimes • Changes in precipitation and hydrological regimes	Closely tied to Sonoran Desert habitat, making it unlikely to adapt well to changes	High

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
- Commercial and industrial areas

Increased encroachment of urbanized areas into Sonoran Desert habitat is a major concern and can directly remove suitable habitat. Gilded Flickers require large patches of native habitat with undisturbed, natural soil substrate that provides needed insect prey. They use urban areas that are adjacent to undisturbed desert habitat patches.

Recommended Actions:

1. Encourage developers to preserve large patches of desert habitat in and adjacent to developments.
2. Conduct outreach to homeowners to encourage correct use of pesticides, and only as a last resort. Pesticides, especially when used incorrectly, can negatively impact ants, which are the natural prey base of Gilded Flicker.

Natural System Modifications:

- Other ecosystem modifications
- Roads and railroads

Habitat fragmentation is caused by roads, residential areas, and agriculture, as well as from destructive land uses that render desertscrub vegetation unsuitable for Gilded Flickers. Although they visit small patches of native vegetation in urban areas, they require larger extents of relatively intact desertscrub at the landscape scale for nesting. If urban areas adjoin large cactus landscapes, urban planners can mitigate impacts to Gilded Flickers by creating open spaces of > 50 acres, and ideally > 240 acres.

Recommended Actions:

1. Delineate areas suitable for targeted Gilded Flicker conservation efforts.
2. Protect relatively intact saguaro landscapes, particularly patches that exceed 240 acres.
3. Minimize destructive land uses, including motorized recreation, excessive grazing, and infrastructure and land developments.
4. Retain large tracts of saguaros to create green-belts and open space.
5. Increase public understanding and appreciation of Gilded Flickers and their unique ecological needs, as well as their important role in creating cavities for other native species, particularly where native landscapes are adjacent to urban areas.

Natural System Modifications:

- Fire and fire suppression

Invasive and Problematic Species:

- Invasive non-native/alien plants

Desert plants, particularly saguaros, are not fire adapted. The spread of non-native grasses and forbs into desertscrub has increased the risk of catastrophic fires that can cause habitat degradation. Loss or conversion of cottonwood-willow riparian habitat to agriculture and invasion of exotic tamarisk have greatly reduced historic riparian areas available to Gilded Flicker, especially along the lower Colorado River.

Recommended Actions:

1. Develop and implement fire management strategies, including invasive grass and weed control, that prevent catastrophic fires in areas occupied by Gilded Flickers.
2. Minimize fire risk by reducing fuel loads along roadways.

3. Enhance large tracts of saguaro landscapes to reduce fire risk.
4. Restore native gallery forests in riparian areas.

Climate Change and Severe Weather:

- Ecosystem encroachment
- Changes in temperature regimes
- Changes in precipitation and hydrological regimes

Prolonged droughts are a concern for Gilded Flickers and other cactus-dependent species because they reduce vigor of saguaros and lead to increased risk of mortality of mature trees and cactuses directly. Drought also impacts habitat indirectly by promoting weed invasion, leading to increased frequency of catastrophic fires. Prolonged droughts may also reduce availability of insects during the nesting season that reduce flicker reproductive success, even when nest sites are available.

Recommended Actions:

1. Delineate Gilded Flicker strongholds for conservation planning purposes.
2. Minimize land uses that may compound the effects of prolonged droughts on saguaros and riparian woodland landscapes.

Research and Monitoring Priorities

1. Use multi-species protocols to conduct ongoing Gilded Flicker monitoring multi-species protocols and/or conduct population inventories at larger intervals to determine population status and trends.
2. Clarify area requirements, habitat requirements, and response to landscape disturbances by Gilded Flickers for more effective conservation planning.
3. Determine if Gilded Flickers use artificial nest boxes in riparian areas, where they may have otherwise suitable nesting grounds.
4. Determine non-breeding season habitat use by Gilded Flickers, including the post-fledging and wintering seasons.
5. Determine long-term effects of open range livestock grazing in desert landscapes, particularly on recruitment of saguaros, paloverde, and other desert trees, and on spread of invasive grasses and forbs.
6. Determine needed patch size of adjacent natural habitat for Gilded Flickers to be able to use native habitat within urban developments.
7. Determine the impact of drought by assessing ground insect availability and Gilded Flicker reproductive success to better predict effects of climate change on the species.

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