Violet-green Swallow, photo by ©George Andrejko

Conservation Profile

Species Concerns
Climate Change (Droughts)
Increasing Fire Frequency
Timber Harvesting Practices

Conservation Status Lists	
USFWS[1]	No
AZGFD[2]	No
DoD[3]	No
BLM[4]	No
PIF Watch List[5b]	No
PIF Regional Concern[5a]	No

Migratory Bird Treaty Act
Covered

PIF Breeding Population Size Estimates[6]	
Arizona	710,000 ◑
Global	7,200,000 ◑
Percent in Arizona	9.86%

PIF Population Goal[5b]
Maintain

Trends in Arizona	
Historical (pre-BBS)	Unknown
BBS[7] (1968 – 2013)	+0.01%/year ●

PIF Urgency/Half-life (years)[5b]
> 50

Monitoring Coverage in Arizona	
BBS[7]	Adequate
AZ CBM	Not covered

Associated Breeding Birds
Acorn Woodpecker, Red-naped Sapsucker, Hairy Woodpecker, Warbling Vireo, Steller's Jay, Mountain Chickadee, Pygmy Nuthatch, Western Bluebird, Yellow-rumped Warbler, Western Tanager

Breeding Habitat Use Profile

Habitats Used in Arizona
Primary: Montane Riparian Woodlands
Secondary: Montane Forests, locally Upper Sonoran Desert

Key Habitat Parameters	
Plant Composition	Most montane forest types, often with some element of riparian, wetland, open water or other moist habitat types[8]
Plant Density and Size	Unknown
Microhabitat Features	Snags, live trees, or cliffs for nesting, mesic areas with high insect productivity for foraging[8]; in wooded landscapes, often noted foraging and nesting near forest clearings and edges.
Landscape	Largely unknown, but must include some old-growth forests or cliffs

Elevation Range in Arizona[9]
3,200 – 10,500 feet, locally to 1,200 feet

Density Estimate
Territory Size: Unknown
Density: Unknown, sometimes occurs in loose colonies[8]

Natural History Profile

Seasonal Distribution in Arizona	
Breeding	April – early August, desert nesting may begin in March[9]
Migration	February – April; August – mid-October[9]
Winter	Rare, very small numbers

Nest and Nesting Habits	
Type of Nest	Cavity or crevice[8]
Nest Substrate	Tree, rock, or cliff; artificial nest boxes[8]
Nest Height	In trees: 15 – 85 feet[9]

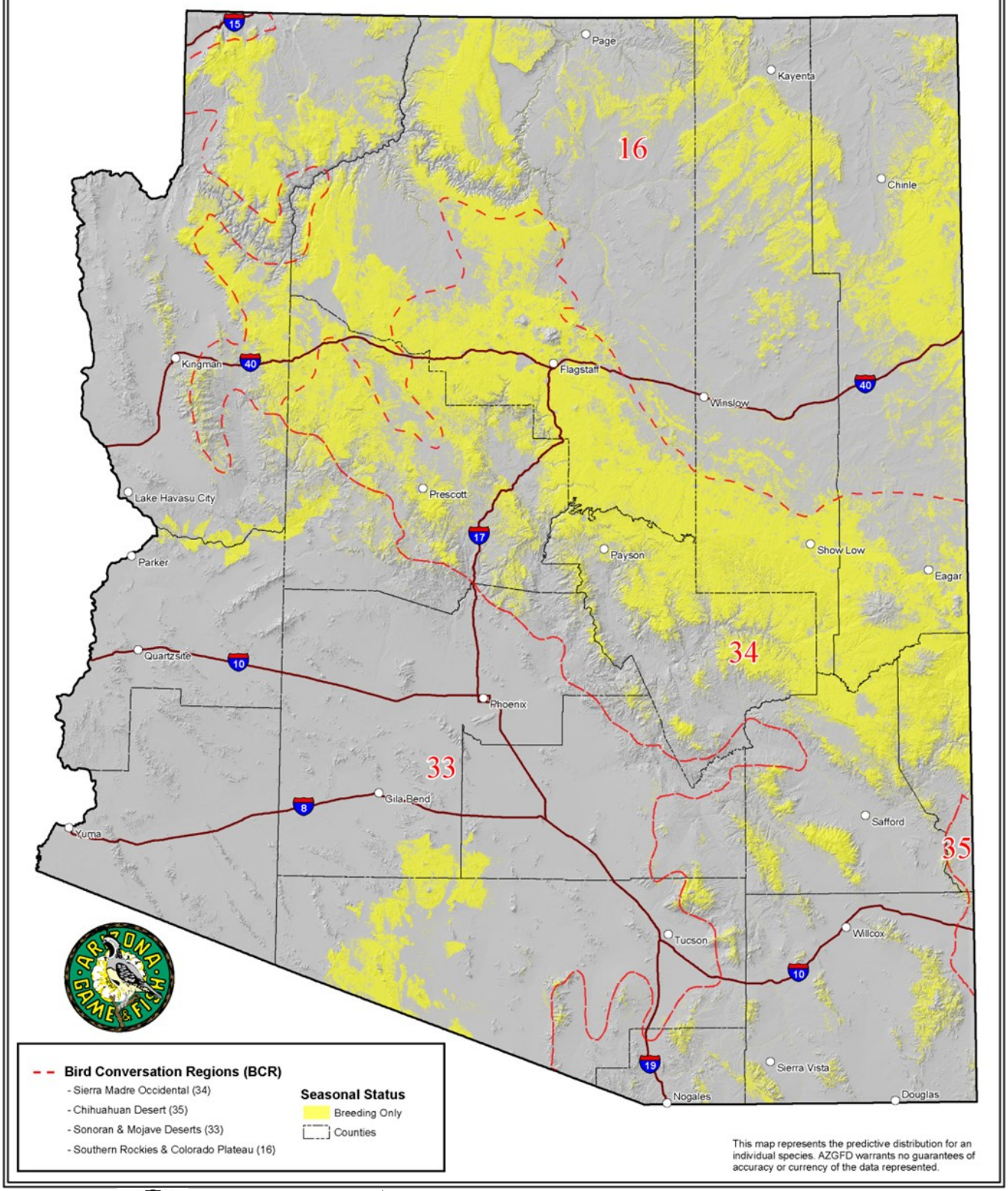
Food Habits	
Diet/Food	Flying insects[8]
Foraging Substrate	Aerial foraging

SPECIES ACCOUNT ● *VIOLET-GREEN SWALLOW Tachycineta thalassina*

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

Last Update: October 2023

Distribution of Violet-green Swallow



General Information

Distribution in Arizona

Violet-green Swallows nest in the montane zone throughout Arizona, largely avoiding elevations below 3,200 feet, particularly in the southwestern region (Corman 2005). However, the Arizona Breeding Bird Atlas provided the first record of a small, isolated population of Violet-green Swallows nesting in saguaros at Organ Pipe Cactus National Monument and nearby areas. This population may belong to a separate and smaller subspecies (Corman 2005). Violet-green Swallows winter primarily in Mexico and Central America. Irregular, but possibly increasing winter records of individuals (December-January) occur in southern Arizona. Northbound migrants typically begin to arrive in early February, occasionally mid- to late-January.

Habitat Description

Violet-green Swallows are found in a wide variety of montane woodlands and wooded drainages that often include nearby cliffs or rock outcroppings, particularly in ponderosa pine, pinyon-juniper, pine-oak, mixed conifer, aspen, and sycamore forests (Corman 2005). During migration, Violet-green Swallows depend primarily on waterways, lakes, and irrigated fields at low elevations (Brown et al. 2011). Little else is known about habitat selection of Violet-green Swallows in Arizona.

Microhabitat Requirements

Violet-green Swallows are secondary cavity nesters that use natural crevices or cavities that are created by snags, old woodpecker holes, rock outcrops, cliffs, dirt banks, buildings, and other taller human-made structures (Corman 2005, Brown et al. 2011). They also readily use artificial nest boxes. Because Violet-green Swallows are exclusively aerial foragers, little is known about the microhabitats of their prey (flying insects). Violet-green Swallows commonly forage in riparian areas and other mesic environments, although the also take advantage of upland habitats more than other swallows (Great Basin Bird Observatory, pers. comm.) More research on their habitat requirements is needed.

Landscape Requirements

Area requirements including home range sizes of Violet-green Swallows are currently unknown. The species likely requires large landscapes due to their exclusive need to forage on flying insects. However, Violet-green Swallows also appear to be fairly tolerant of infrastructure and other landscape disturbances.

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
Biological Resource Use • Logging and wood harvesting		Medium
Natural System Modifications • Fire and fire suppression		Medium
Invasive and Problematic Species • Problematic native animals	Excessive elk browsing of aspen	Medium
Pollution • Pesticides	These can reduce flying insect populations	High
Climate Change • 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.

Biological Resource Use:
- Logging and wood harvesting

Invasive and Problematic Species:
- Problematic native animals

Further research is needed to understand if and how timber harvesting practices affect Violet-green Swallows. Practices that remove snags, old-growth trees, and/or vegetation that supports flying insects are likely detrimental to nesting birds. However, the extent of the impact of these practices is currently unknown. Violet-green Swallows frequently use tall aspen stands for foraging and nesting. Loss of this habitat has locally been attributed to various factors, including aspen decline syndrome and reduced recruitment from past fire suppression activities and excessive elk and cattle browsing.

Recommended Actions:

1. Retain old-growth trees and snags in all montane forest types.
2. Protect understory and other plants that support flying insects in montane forests.
3. Implement management practices that retain and recruit aspen groves in ponderosa pine and mixed-conifer habitats.

4. Promote timber harvest, elk management, livestock grazing, and fire management practices that support aspen regeneration.

Natural System Modifications:
- Fire and fire suppression

Pollution:
- Pesticides

These conservation issues affect primarily migrant Violet-green Swallow populations, but possibly also populations that nest in montane and canyon riparian areas and aspen in Arizona. Fire suppression and an increase in intensity and size of forest wildfires ultimately reduce nesting habitat availability. Decades of fire suppression reduces forest openness preferred by nesting Violet-green Swallows. It also causes a decline in aspen stand recruitment. Migrant populations primarily depend on waterbodies and mesic habitats for migration stop-over feeding. Recent data on the general decline of avian aerial insectivores indicates that use of certain pesticides diminishes flying insect populations and poses a risk to Violet-green Swallows.

Recommended Actions:

1. Conserve lowland and montane riparian habitats throughout the state.
2. Work with researchers to determine the types of pesticides that reduce flying insects and investigate the type and extent of impacts to swallows in general. Reduce or eliminate the use of these pesticides.

Climate Change:
- Ecosystem encroachment
- Changes in precipitation and hydrological regimes

Violet-green Swallows are widespread throughout the montane upland forests of Arizona, and they have a fairly large global range (Brown et al. 2011). Prolonged droughts and subsequent lowering water tables will challenge successful recruitment of riparian trees, especially at lower elevations. The one small and local population of Violet-green Swallows in the Sonoran Desert may belong to the Mexican subspecies *T.t. brachyptera* (Corman 2005), which may make it the only U.S. breeding population of this subspecies. It nests in saguaros, which are susceptible to mortality and decreased recruitment during prolonged droughts.

Recommended Actions:

1. Delineate Violet-green Swallow occupied areas in Organ Pipe Cactus National Monument and nearby areas to determine spatial extent of habitat area used.
2. Protect saguaro landscapes and mitigate losses due to prolonged droughts.

Research and Monitoring Priorities

1. Determine the taxonomy, distribution, and breeding phenology of Sonoran Desert breeding population of Violet-green Swallows in Arizona.

2. Determine foraging requirements and vegetation that support flying insects in montane riparian and upland forests.
3. Determine area requirements, including home range sizes, and sensitivity to landscape disturbances of Violet-green Swallows.

Literature Cited

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Recommended Citation

Arizona Bird Conservation Initiative and Sonoran Joint Venture. 2023. Violet-green Swallow (*Tachycineta thalassina*) Species Account. Available at https://sonoranjv.org/accounts/violet-green-swallow.pdf