



Olive-sided Flycatcher, photo by ©Robert Shantz

Conservation Profile

| Species Concerns | |
|---|--------------|
| Population Declines | |
| Fire Suppression and Fire Intensity | |
| Conservation Status Lists | |
| USFWS ¹ | BCC List |
| AZGFD ² | Tier 1C |
| DoD ³ | Yes |
| BLM ⁴ | No |
| PIF Watch List ^{5b} | Yellow List |
| PIF Regional Concern ^{5a} | No |
| Migratory Bird Treaty Act | |
| Covered | |
| PIF Breeding Population Size Estimates ⁶ | |
| Arizona | 8,400 |
| Global | 1,900,000 |
| Percent in Arizona | 0.44% |
| PIF Population Goal ^{5b} | |
| Reverse Decline | |
| Trends in Arizona | |
| Historical (pre-BBS) | Unknown |
| BBS ⁷ (1968 – 2013) | +0.23/year ● |
| PIF Urgency/Half-life (years) ^{5b} | |
| 24 | |
| Monitoring Coverage in Arizona | |
| BBS ⁷ | Not adequate |
| AZ CBM | Not covered |
| Associated Breeding Birds | |
| Northern Saw-whet Owl, Broad-tailed Hummingbird, Williamson's Sapsucker, Clark's Nutcracker, Townsend's Solitaire, Yellow-rumped Warbler, Pine Siskin, Tree Swallow | |

Breeding Habitat Use Profile

| Habitats Used in Arizona | |
|--|--|
| Primary: Mixed Conifer-Aspen Forest | |
| Secondary: Pine Forest | |
| Key Habitat Parameters | |
| Plant Composition | Douglas fir, white fir, Engelmann spruce, ponderosa pine, aspen and Gambel oak ⁸ |
| Plant Density and Size | Open forest (0 – 40% canopy) with scattered trees and many snags; often post-fire forests with standing-dead snags, or selectively harvested forests |
| Microhabitat Features | Tall live trees for nesting, tall isolated or edge trees or snags for foraging perches ⁹ |
| Landscape | Associated with forest openings and forest edge, often near water ⁹ |
| Elevation Range in Arizona | |
| 6,900 – 10,000 feet ⁸ | |
| Density Estimate | |
| Territory Size: 25 – 65 acres ⁹ | |
| Density: No data | |

Natural History Profile

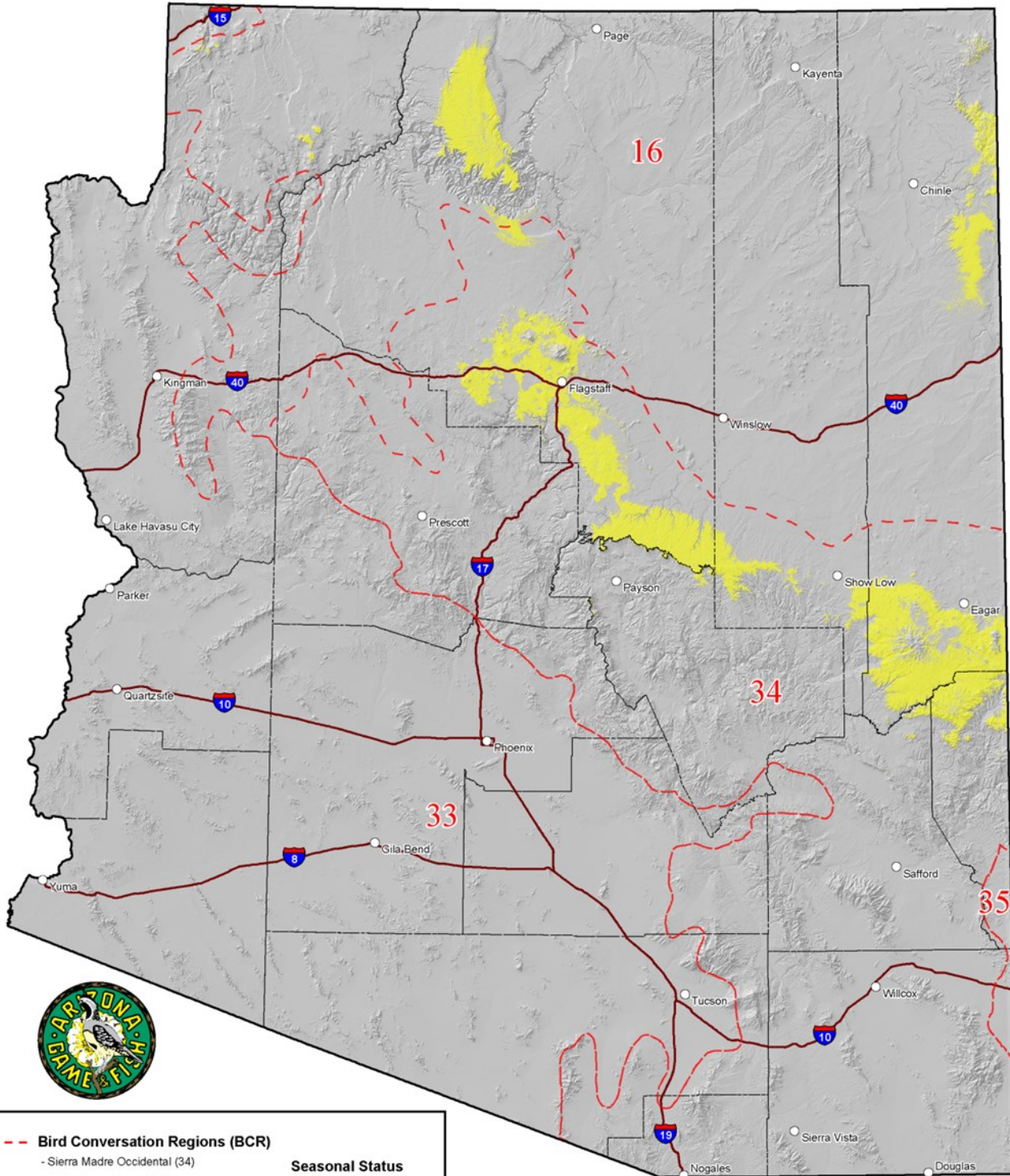
| Seasonal Distribution in Arizona | |
|----------------------------------|---|
| Breeding | May – Mid-August ⁸ |
| Migration | Mid-April – mid-June; Mid-August – September ⁸ |
| Winter | No wintering populations |
| Nest and Nesting Habits | |
| Type of Nest | Cup ⁹ |
| Nest Substrate | Horizontal branch of conifer, occasionally aspen or Gambel oak ⁸ |
| Nest Height | 5 – 100 feet ⁹ |
| Food Habits | |
| Diet/Food | Flying insects ⁹ |
| Foraging Substrate | Aerial sallies from perches, exclusively |



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

Last Update: April 2023

Distribution of Olive-sided Flycatcher



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

SPECIES ACCOUNT • OLIVE-SIDED FLYCATCHER *Contopus cooperi*



General Information

Distribution in Arizona

In Arizona, Olive-sided Flycatchers occur during the breeding season primarily along the top of the Mogollon Rim from the White Mountains to the San Francisco Peaks, extending north in the high-elevation forests of Coconino County to the Kaibab Plateau (Wise-Gervais 2005). They also occur in the Chuska Mountains and nearby ranges in the far northeast (Wise-Gervais 2005). Olive-sided Flycatchers are close to the southern boundary of their global breeding range in Arizona, and their primary distribution is boreal (Altman and Sallabanks 2012).

Habitat Description

In Arizona, Olive-sided Flycatchers occur in all conifer forest types from subalpine spruce to pure ponderosa pine forests (Wise-Gervais 2005). They are most abundant in mixed conifer forests that include Douglas fir, white fir, and ponderosa pine, which are often interspersed with Gambel oak and aspen (Wise-Gervais 2005). Olive-sided Flycatchers prefer areas with natural or artificial forest edges and openings with an overall canopy cover of 0-40%, and their abundance often increases with decreasing canopy cover (Altman and Sallabanks 2012). They often use older trees or snags, and rarely occur in mid-successional forest stages (Altman and Sallabanks 2012). Olive-sided Flycatcher densities have been found to be higher in burned than in unburned forests (Hutto 1995, Kotliar et al. 2002, Altman and Sallabanks 2012).

Microhabitat Requirements

Olive-sided Flycatchers nest primarily in the outer branches of tall, live conifers, although they also use other trees in mixed conifer settings (Altman and Sallabanks 2012). They forage almost exclusively by catching flying insects on the wing from high, unobstructed perches, such as tall snags or the uppermost branches of tall trees.

Landscape Requirements

Olive-sided Flycatchers require a coniferous forest landscape setting, but they are most often associated with forest edges and openings. Their reported increase in density near water and riparian areas may be related to increased insect densities or to their general preference for forest openings (Altman and Sallabanks 2012). Burned areas provide snags and open space, but Olive-sided Flycatchers need live trees at the edges of burns for nesting (Kotliar et al. 2002). Area requirements and disturbance distances have not yet been studied.



Conservation Issues and Management Actions

Population Decline

Data from the Breeding Bird Survey indicate recent declines of 3.6% per year in Olive-sided Flycatcher populations across their breeding range (Sauer et al. 2016). Partners in Flight also notes a 30-year decline in their population of 67% (Rosenberg et al. 2016). The Colorado Plateau populations are likely also declining. Causes for the declines are poorly understood, but habitat losses in wintering grounds have been suspected as a major factor (Altman and Sallabanks 2012). We recommend working internationally to determine causes of the decline.

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 | Large stand logging and removal of snags | Medium |
| Natural System Modifications • Fire and fire suppression | Stand replacement wildfires and fire suppression | High |
| Pollution • Air-borne pollutants | Pesticides which reduce number of flying insects | Medium |
| Climate Change • Ecosystem encroachment • Changes in temperature regimes • 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

Natural System Modifications:

- Fire and fire suppression

Unlike some other coniferous forest birds, the Olive-sided Flycatcher actually benefits from openings and snags created by some high-intensity fires, as long as other portions of the coniferous landscape remain intact (Kotliar 2007, Altman and Sallabanks 2012). Both full fire suppression and light-intensity fires that only reduce the understory may prevent the natural landscape mosaic including forest openings that maintains Olive-sided Flycatcher populations (Kotliar 2007). Removal of tall snags, including stands killed by fire, reduces habitat quality for Olive-sided Flycatchers, which prefer a horizontal landscape diversity of dif-



ferent density forest patches and clearings. Post-fire forests may continue to be suitable for Olive-sided Flycatchers for up to 20 years, depending on tree growth rates (Kotliar 2007).

Recommended Actions:

1. Retain snags and tall live trees in areas occupied by Olive-sided Flycatchers when conducting forest harvest and thinning practices.
2. Implement logging or thinning practices that mimic natural wildfire in scale and amount of trees retained. In areas occupied by Olive-sided Flycatcher where fires are suppressed for other reasons.

Climate Change:

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

It is currently unclear what, if any, role aspen plays in supporting Arizona populations of Olive-sided Flycatcher. Further research is needed on their habitat requirements. If aspen is important to the species, Aspen Decline Syndrome and climate change effects may be a concern for the conservation of this species.

Recommended Actions:

1. Develop forestry strategies that maintain natural and, if necessary, artificial openings in mixed conifer forests occupied by Olive-sided Flycatchers (see also below).
2. If aspen is found to be important to Olive-sided Flycatchers (see Research and Monitoring Priorities below), take conservation actions outlined in other accounts (e.g., Red-naped and Williamson's sapsuckers) that maintain aspen stands.

Research and Monitoring Priorities

1. Develop a monitoring plan for Olive-sided Flycatchers that takes into account climate change and land use patterns.
2. Determine forest management practices for fire management (scale, intensity, and frequency) that are economically feasible and suitable for maintaining Olive-sided Flycatcher habitat.
3. Determine whether Olive-sided Flycatcher population declines are caused by winter mortality or by low reproductive success.
4. Conduct effectiveness monitoring in areas of logging projects and fires to better determine what landscape management practices are most suitable for Olive-sided Flycatchers.
5. Determine the most appropriate fire treatment types for Olive-sided Flycatcher.
6. Determine the importance of aspen and riparian areas to Olive-sided Flycatchers in Arizona.



Literature Cited

- ⁹Altman, B., and R. Sallabanks. 2012. Olive-sided Flycatcher (*Contopus cooperi*), The Birds of North America Online (A. Poole, ed.) Ithaca: Cornell Lab of Ornithology.
- ⁴Arizona Bureau of Land Management Sensitive Species List – March 2017.
- ²Arizona Game and Fish Department. 2012. Arizona’s State Wildlife Action Plan: 2012 – 2022. Arizona Game and Fish Department, Phoenix, AZ.
- ³Department of Defense. 2012. DoD PIF Mission-Sensitive Priority Bird Species. Fact Sheet #11. Department of Defense Partners in Flight Program.
- Hutto, R.L. 1995. Composition of bird communities following stand-replacement fires in northern Rocky Mountain forests. *Conservation Biology* 9(5):1041 – 1058.
- Kotliar, N.B., S. Heil, R.L. Hutto, V. Saab, C.P. Melcher, and M.E. McFadzen. 2002. Effects of fire and post-fire salvage logging on avian communities in conifer-dominated forests of the western United States. *Studies in Avian Biology* 25:49 – 64.
- Kotliar, N.B. 2007. Olive-sided Flycatcher (*Contopus cooperi*): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region.
- ^{5a}Partners in Flight. 2019. Avian Conservation Assessment Database, version 2019. Accessed on March 31, 2020.
- ⁶Partners in Flight Science Committee. 2019. Population Estimates Database, version 3.0. Accessed on March 31, 2020.
- Salafsky, N., D. Salzer, A.J. Stattersfield, C. Hilton-Taylor, R. Neugarten, S.H.M. Butchart, B. Collen, N. Cox, L.L. Master, S. O’Connor, and D. Wilkie. 2008. A standard lexicon for biodiversity conservation: unified classifications of threats and actions. *Conservation Biology* 22(4): 897 – 911.
- ⁷Sauer, J.R., J.E. Hines, J.E. Fallon, K.L. Pardieck, D.J. Ziolkowski, Jr., and W.A. Link. 2016. The North American Breeding Bird Survey, Results and Analysis 1966 – 2013, Version 2016. USGS Patuxent Wildlife Research Center, Laurel, MD. Accessed on July 1, 2016.
- ¹U.S. Fish and Wildlife Service. 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, VA. 85 pp.
- ⁸Wise-Gervais, C. 2005. Olive-sided Flycatcher. *In*: Arizona Breeding Bird Atlas. Corman, T.E., and C. Wise-Gervais (eds.) University of New Mexico Press. Albuquerque, NM.

Recommended Citation

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