Egretta tricolor

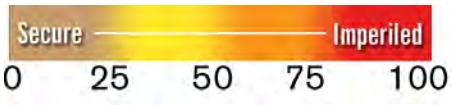
Tricolored Heron

Class: Aves

Order: Pelecaniformes

Family: Ardeidae

Priority Score: **19** **out of 100**



Population Trend: Stable

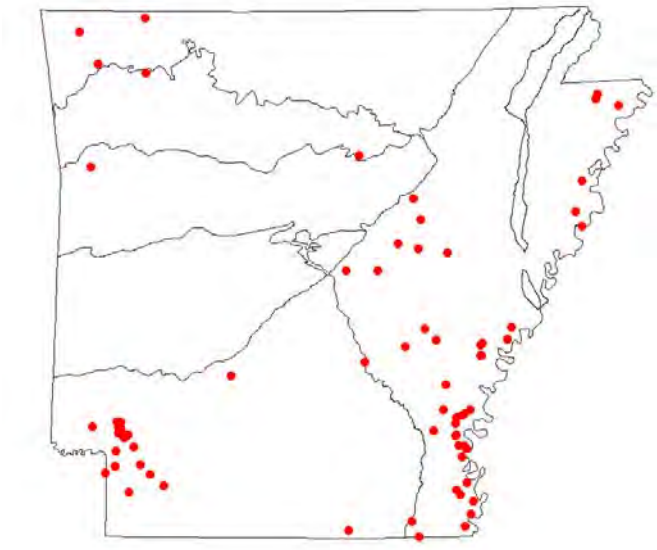
Residence: Breeding

Global Rank: G5 — Secure

State Rank: S2B — Imperiled breeding species in Arkansas

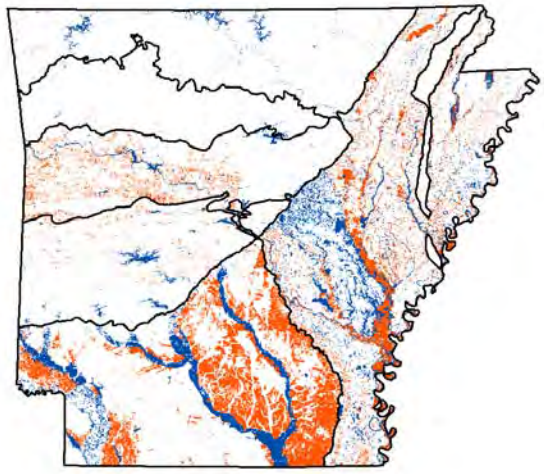
Distribution

Occurrence Records



Ecoregions where the species occurs:

- [x] Ozark Highlands
- [x] Boston Mountains
- [x] Arkansas Valley
- [ ] Ouachita Mountains
- [x] South Central Plains
- [x] Mississippi Alluvial Plain
- [ ] Mississippi Valley Loess Plains



Habitat Map

Habitats	Weight
Herbaceous Wetland	Suitable
Lower Mississippi Alluvial Plain Grand Prairie	Suitable
Lower Mississippi Flatwoods Woodland and Forest	Marginal
Lower Mississippi River Bottomland Depression	Suitable
Lower Mississippi River High Bottomland Forest	Marginal
Lower Mississippi River Low Bottomland Forest	Suitable
Lower Mississippi River Riparian Forest	Marginal
Ozark-Ouachita Large Floodplain	Marginal
Ponds, Lakes, and Water Holes	Suitable
West Gulf Coastal Plain Large River Floodplain Forest	Suitable
West Gulf Coastal Plain Red River Floodplain Forest	Suitable

Problems Faced

KNOWN PROBLEM: Loss of emergent wetlands.	Threat: Altered composition/structure Source:
KNOWN PROBLEM: Conflicts with aquaculture.	Threat: Extraordinary competition for resources Source: Confined animal operations
KNOWN PROBLEM: Loss of wetlands from conversion.	Threat: Habitat destruction or conversion Source: Agricultural practices
POTENTIAL PROBLEM: Vulnerable to toxins and contaminants resulting from agricultural run-off.	Threat: Toxins/contaminants Source: Agricultural practices

Data Gaps/Research Needs

Determine the impacts of toxins, heavy metals, and pesticides.

Conservation Actions

	Importance	Category
Maintain wetlands.	High	Habitat Protection
Restore wetlands.	High	Habitat Restoration/Improvement

Monitoring Strategies

Initiate a Colonial Waterbird Survey as well as track species by www.ebird.com. Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

This species is a rare and irregular summer resident that has bred a few times in Arkansas. It is more common in late summer when immatures wander north from breeding grounds nearer the coast. The tricolored heron favors coastal salt marshes. A decline in the availability of coastal marshes in Louisiana and the Gulf of Mexico has likely led to a decline in this species, which was previously known as the Louisiana Heron. Wetland restoration in Arkansas can improve breeding opportunities long term, especially if sea level rise forces the species to move northward from Louisiana. (Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, Hunter and Patrick 2003, James and Neal 1986, Kushlan and others 2002, Layher 1993, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Rodgers and Smith 1995, Sauer and others 2004).

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Elanoides forficatus

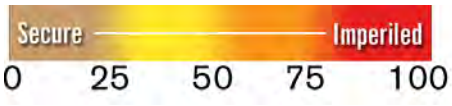
Swallow-tailed Kite

Class: Aves

Order: Accipitriformes

Family: Accipitridae

Priority Score: **29** **out of 100**



Population Trend: Decreasing

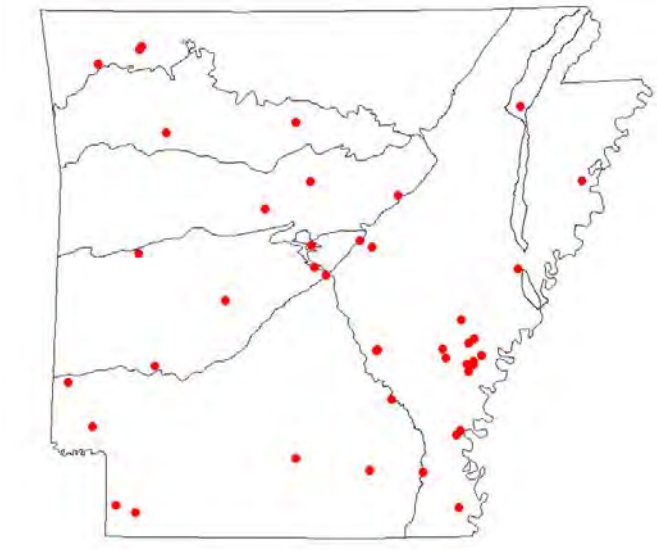
Residence: Breeding

Global Rank: G5 — Secure

State Rank: S1B — Critically imperiled breeding species in Arkansas

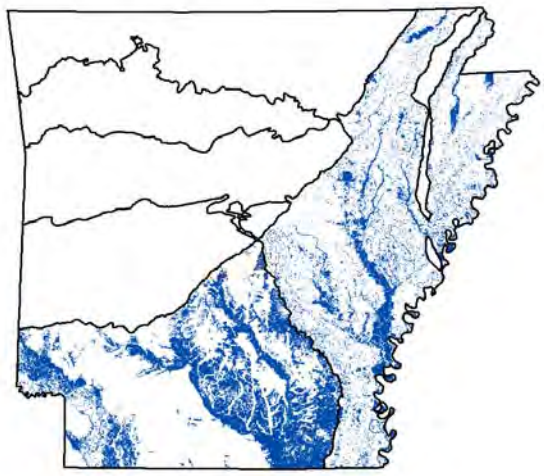
Distribution

Occurrence Records



Ecoregions where the species occurs:

- ☐ Ozark Highlands
- ☐ Boston Mountains
- ☐ Arkansas Valley
- ☐ Ouachita Mountains
- ☑ South Central Plains
- ☑ Mississippi Alluvial Plain
- ☐ Mississippi Valley Loess Plains



Habitat Map

Habitats

	Weight
Lower Mississippi Flatwoods Woodland and Forest	Suitable
Lower Mississippi River High Bottomland Forest	Suitable
Lower Mississippi River Low Bottomland Forest	Suitable
Lower Mississippi River Riparian Forest	Suitable
West Gulf Coastal Plain Large River Floodplain Forest	Suitable
West Gulf Coastal Plain Red River Floodplain Forest	Suitable

Problems Faced

KNOWN PROBLEM: Loss of bottomland hardwood forests.	Threat: Habitat destruction or conversion Source: Conversion of riparian forest
KNOWN PROBLEM: Loss of bottomland hardwood forests.	Threat: Habitat destruction or conversion Source: Agricultural practices
KNOWN PROBLEM: Loss of bottomland hardwood forests.	Threat: Altered composition/structure Source: Forestry activities
KNOWN PROBLEM: Nest failure.	Threat: Extraordinary predation/parasitism/disease Source: Predation

Data Gaps/Research Needs

Determine if species is breeding on Dale Bumpers White River National Wildlilfe Refuge and adjoining private lands.
Determine if species is nesting and successfully fledging young on Sulphur River Wildlife Management Area.
Determine if species is present on Dale Bumpers White River National Wildlilfe Refuge during breeding season.
Determine if tree density and canopy connectivity increases rates of predation on nesting kites.

Conservation Actions

	Importance	Category
Manage forests for super dominant trees in canopy for nesting.	High	Habitat Restoration/Improvement
Reduce nestling predation.	High	Threat Abatement

Monitoring Strategies

The Partners in Flight North American Landbird Conservation Plan indicates that this species has imprecise trend data at the continental level. A specialized effort to determine if this species is nesting in Arkansas is needed. Nesting populations must be monitored in a manner which eliminates disturbance to the species. Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

Once ranging from Florida to Minnesota, this species is now restricted to a few southeastern states, with most birds found in Florida. Formerly extirpated from Arkansas since the 1940s, a pair was observed routinely during the breeding season in 1998 and 1999 along the lower White River in the vicinity of the Dale Bumpers White River National Wildlife Refuge (DBWRNWR). This apparent re-colonization of Swallow-tailed Kites was significant because this species seems to have a high fidelity to breeding sites and tends to nest socially in loose colonies. Funded by AWAP funds and funds from the Arkansas Game and Fish Commission, a research project was initiated in 2002 to locate and monitor Swallow-tailed Kite nests on the DBWRNWR. Nests were located but failed prior egg hatching in 2002, 2004, 2005 and 2006. In 2007 and 2009. Swallow-tailed Kites were present on the refuge during the breeding season, but a nest was not located. In 2008 a nest with 3 nestlings was located and monitored but failed due to researcher disturbance. Swallow-tailed kites have been observed sporadically in spring and summer on the DBWRNWR since 2010. It is unknown if a pair is still attempting to nest on the refuge or adjoining property.

The most recent observation of this species occurred during spring/summer 2015, when a pair was repeatedly observed from April - August at Sulphur River Wildlife Management Area. The pair is assumed to have made a nesting attempt based on observed behavior (K. Rowe, pers. Comm.). Individual Swallow-tailed Kites, most likely from Louisiana, have been observed throughout Arkansas during the post-breeding season dispersal period.

(Arkansas Audubon Society 2012, Bader and Bednarz 2005, Carter and others 2000, Chiavacchi and others 2011, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, James and Neal 1986, Martin and Finch 1995, Meyer 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004)

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Empidonax traillii

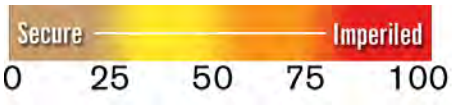
Willow Flycatcher

Class: Aves

Order: Passeriformes

Family: Tyrannidae

Priority Score: **23** **out of 100**



Population Trend: Stable

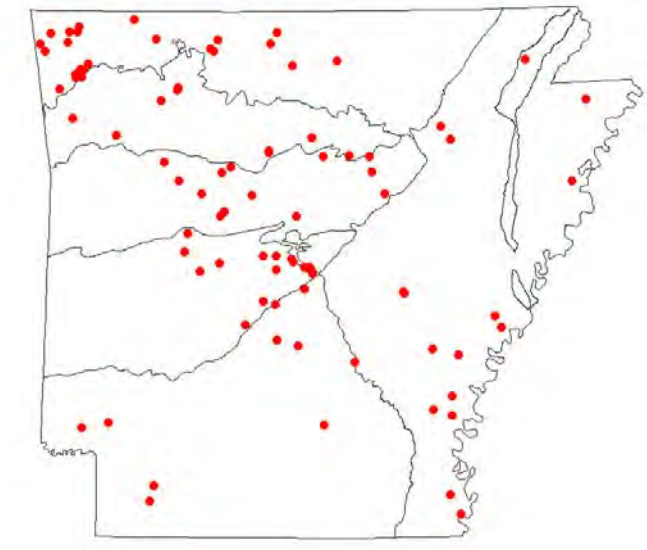
Residence: Breeding

Global Rank: G5 — Secure

State Rank: S1B — Critically imperiled breeding species in Arkansas

Distribution

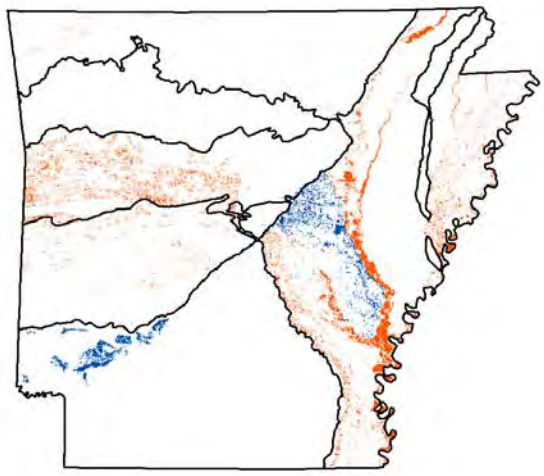
Occurrence Records



Ecoregions where the species occurs:

- ☑ Ozark Highlands
- ☑ Boston Mountains
- ☑ Arkansas Valley
- ☑ Ouachita Mountains
- ☑ South Central Plains
- ☑ Mississippi Alluvial Plain
- ☑ Mississippi Valley Loess Plains

Habitat Map



Habitats	Weight
Lower Mississippi Alluvial Plain Grand Prairie	Suitable
Lower Mississippi River Riparian Forest	Marginal
Ozark-Ouachita Large Floodplain	Marginal
Ozark-Ouachita Prairie and Woodland	Suitable
West Gulf Coastal Plain Calcareous Prairie and Woodland	Suitable

Problems Faced

KNOWN PROBLEM: Loss of grassland with shrub component.	Threat: Altered composition/structure Source: Dam
KNOWN PROBLEM: Loss of grassland with shrub component.	Threat: Riparian Habitat Destruction Source: Conversion of riparian forest
KNOWN PROBLEM: Loss of grassland with shrub component.	Threat: Riparian Habitat Destruction Source: Agricultural practices
KNOWN PROBLEM: Loss of grassland with shrub component.	Threat: Habitat destruction or conversion Source: Urban development
KNOWN PROBLEM: Loss of grassland with shrub component.	Threat: Habitat destruction or conversion Source: Agricultural practices
POTENTIAL PROBLEM: Loss of quality, native grasslands.	Threat: Altered composition/structure Source: Grazing/Browsing
POTENTIAL PROBLEM: Loss of quality, native grasslands.	Threat: Altered composition/structure Source: Agricultural practices
POTENTIAL PROBLEM: Parasitism by Brown-headed Cowbirds.	Threat: Extraordinary predation/parasitism/disease Source: Parasites/pathogens

Data Gaps/Research Needs

Locate and survey potential breeding habitat.

Conservation Actions

	Importance	Category
Maintain grasslands with shrub component.	High	Habitat Protection
Restore grassland with shrub component.	High	Habitat Restoration/Improvement

Monitoring Strategies

The Partners in Flight North American Landbird Conservation Plan indicates that long-term population trend monitoring for this species is generally considered adequate, but some issues, such as bias, may not have been accounted for. Continue to conduct Breeding Bird Surveys at all routes established in Arkansas. Continue effort to locate breeding populations of this species. Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

Population is below historical numbers in Arkansas and throughout the country. Disturbances to riparian habitat such as damming, dredging, channelization, urbanization, draining, and cattle are threats. (Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, James and Neal 1986, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004, Sedgwick 2000)

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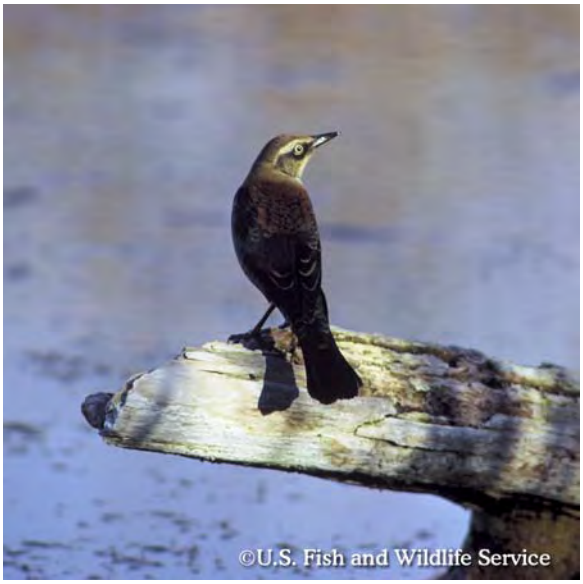
Euphagus carolinus

Rusty Blackbird

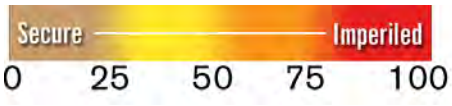


Class: Aves

Order: Passeriformes

Family: Icteridae

Priority Score: **29** **out of 100**



Population Trend: Decreasing

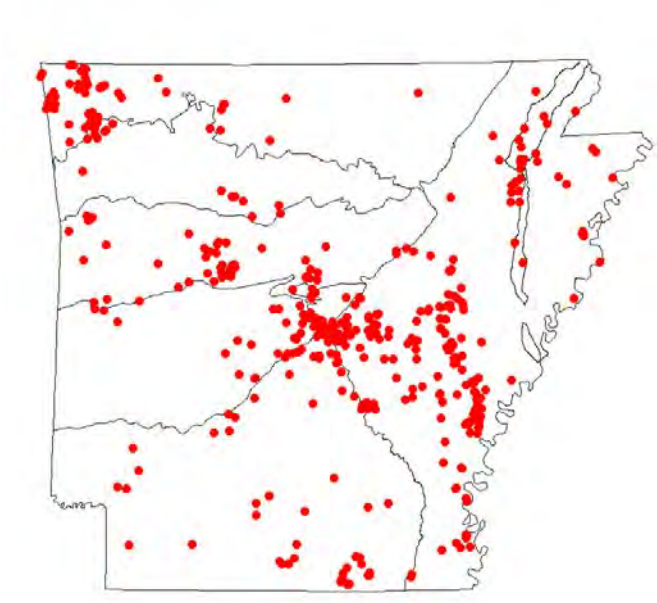
Residence: Winter

Global Rank: G4 — Apparently secure species

State Rank: S2N — Imperiled nonbreeding species in Arkansas

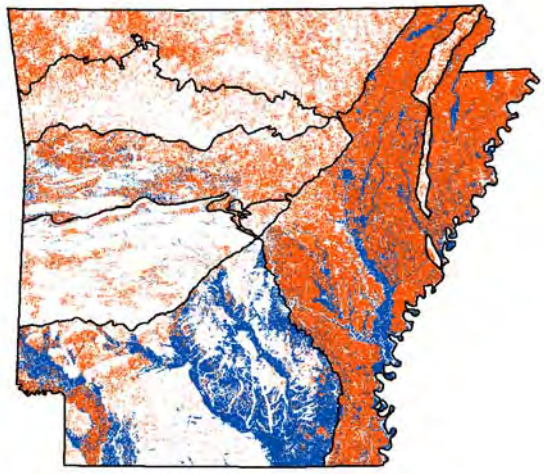
Distribution

Occurrence Records



Ecoregions where the species occurs:

- ☑ Ozark Highlands
- ☑ Boston Mountains
- ☑ Arkansas Valley
- ☑ Ouachita Mountains
- ☑ South Central Plains
- ☑ Mississippi Alluvial Plain
- ☑ Mississippi Valley Loess Plains



Habitat Map

Habitats	Weight
Crop Land	Marginal
Lower Mississippi Flatwoods Woodland and Forest	Suitable
Lower Mississippi River High Bottomland Forest	Suitable
Lower Mississippi River Low Bottomland Forest	Suitable
Lower Mississippi River Riparian Forest	Suitable
Ozark-Ouachita Large Floodplain	Suitable
Ozark-Ouachita Prairie and Woodland	Suitable
Pasture Land	Marginal
West Gulf Coastal Plain Large River Floodplain Forest	Suitable
West Gulf Coastal Plain Red River Floodplain Forest	Suitable

Problems Faced

KNOWN PROBLEM: Loss of wooded wetlands on breeding grounds.	Threat: Habitat destruction Source: Conversion of riparian forest
KNOWN PROBLEM: Loss of wooded wetlands on breeding grounds.	Threat: Habitat destruction Source: Forestry activities
POTENTIAL PROBLEM: Vulernability to toxins and contaminants.	Threat: Toxins/contaminants Source: Non-point source pollution

Data Gaps/Research Needs

Determine habitat use in the winter.
Determine the effect of contaminants on health and survival.
Determine the effect of winter habitat selection on survival and carry-over effects to breeding season.
Information is needed on diet on the wintering grounds in Arkansas.

Conservation Actions

	Importance	Category
Manage water fluctuations for invertebrates in winter.	Low	Habitat Restoration/Improvement
Restore and protect wooded wetlands on breeding grounds.	Low	Habitat Protection

Monitoring Strategies

The Partners in Flight North American Landbird Conservation Plan indicates that this species has imprecise trend data at the continental level. An effort is being made to expand the BBS program to better survey this species. Species specific citizen science-based monitoring efforts were iniitated in 2009 (Rusty Blackbird Blitz) and are aimed at winter and migratory periods. Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

Unlike other blackbirds, this species has undergone significant population decline. Much more research is needed to understand the factors responsible for this decline, but it may be due in part to the destruction of wet woods these birds prefer on the breeding grounds. Clearing the land for agriculture and urbanization also has promoted other blackbirds that may out-compete Rusty Blackbirds. (Arkansas Audubon Society 2012, Avery 2013, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, James and Neal 1986, Martin and Finch 1995, Newell 2013, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004)

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Falco sparverius

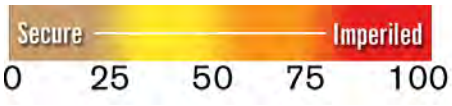
American Kestrel

Class: Aves

Order: Falconiformes

Family: Falconidae

Priority Score: **19** **out of 100**



Population Trend: Stable

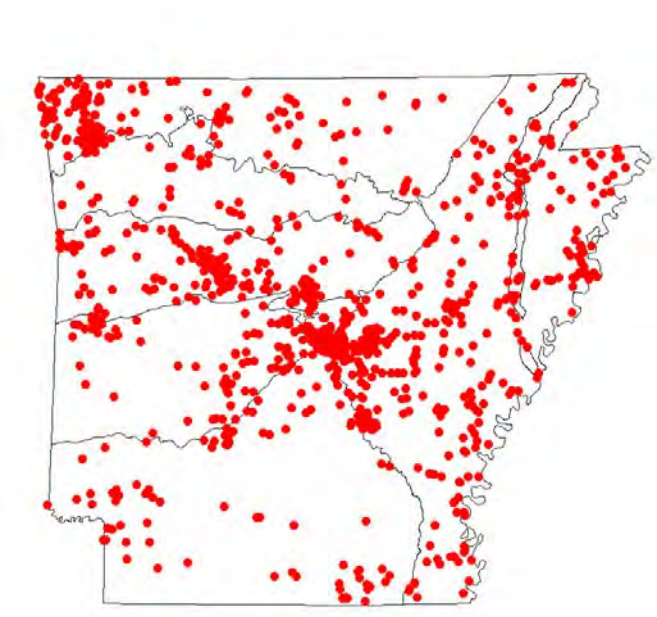
Residence: Winter

Global Rank: G5 — Secure

State Rank: S2B,S4N — Imperiled breeding, apparently secure nonbreeding species in Arkansas

Distribution

Occurrence Records



Ecoregions where the species occurs:

- ☑ Ozark Highlands
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- ☑ Arkansas Valley
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- ☑ Mississippi Alluvial Plain
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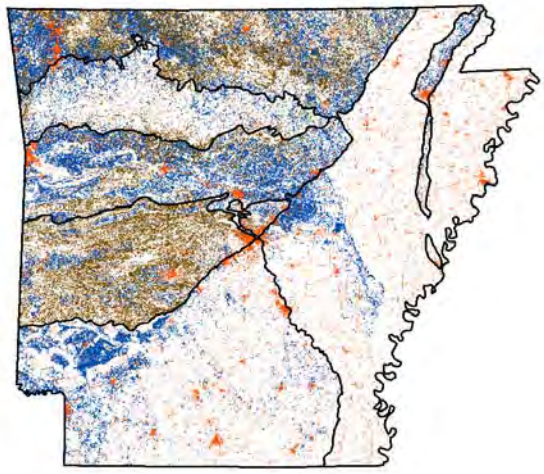

Habitat Map

Habitats	Weight
Central Interior Highlands Calcareous Glade and Barrens	Data Gap
Central Interior Highlands Dry Acidic Glade and Barrens	Data Gap
Lower Mississippi Alluvial Plain Grand Prairie	Suitable
Ozark-Ouachita Pine/Bluestem Woodland	Data Gap
Ozark-Ouachita Prairie and Woodland	Suitable
Pasture Land	Suitable
Urban/Suburban	Marginal
West Gulf Coastal Plain Calcareous Prairie	Suitable

Problems Faced

KNOWN PROBLEM: Lack of large trees within open areas for nesting.	Threat: Habitat destruction Source: Agricultural practices
KNOWN PROBLEM: Loss of available habitat due to succession from grassland and shrubland to forest.	Threat: Altered composition/structure Source: Forestry activities

Data Gaps/Research Needs

Determine causes of mortality.
Determine effects of pasture grass Kentucky 31 on prey species availability.
Determine factors that contribute to nest box use when nest structures are located in unoccupied habitat.
Determine impacts of pesticides.
Determine postfledging dispersal and subsequent recruitment into breeding populations.

Conservation Actions

	Importance	Category
Encourage farmers/ranchers to retain snags in pastures.	High	Habitat Restoration/Improvement
Encourage farmers/ranchers to retain widely spaced den trees in pastures.	High	Habitat Restoration/Improvement
Establish nest boxes in areas where kestrels occur during winter months.	High	Habitat Restoration/Improvement

Monitoring Strategies

Additional surveys need to be conducted in appropriate habitat to improve precision of BBS monitoring. Christmas Bird Count data are appropriate for monitoring overwintering kestrels.

Comments

American Kestrels inhabit open country across the United States where they hunt from perches and often while hovering (Smallwood and Bird 2002). They are commonly seen perched on utility lines along roadsides and thus are often censused from automobiles. Kestrels will not breed in habitat that is devoid of nesting cavities or dominated by tall grass or shrubs (Stys 1993). Fortunately, they will accept nesting boxes which can be used to increase breeding populations (Hamerstrum et al. 1973). Nest boxes placed with their openings facing south and east may be preferred (McComb and Nobel 1981). Kestrels have been documented nesting in man-made structures and buildings in Arkansas. Sites includes inside gutters, behind siding in insulation, and inside beams (K.Rowe pers. Obs). In Arkansas the overwintering population is larger than the breeding population (C. Kellner pers.obs.).

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Gallinula galeata

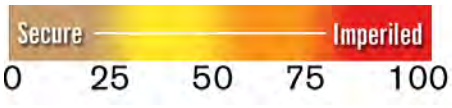
Common Gallinule

Class: Aves

Order: Gruiformes

Family: Rallidae

Priority Score: **19** **out of 100**



Population Trend: Unknown

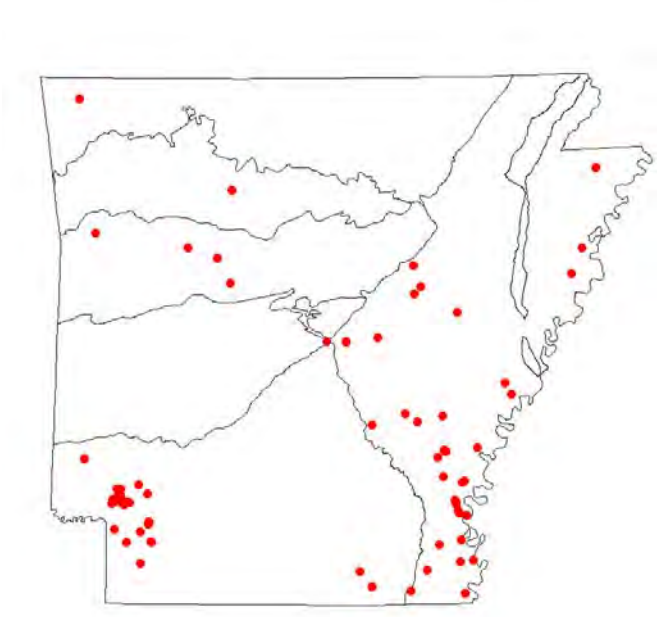
Residence: Breeding

Global Rank: G5 — Secure

State Rank: S2B — Imperiled breeding species in Arkansas

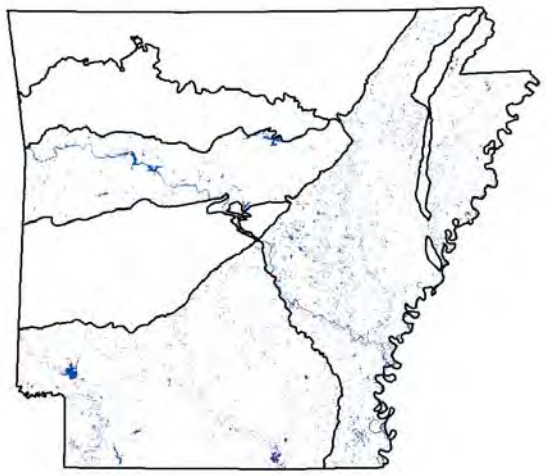
Distribution

Occurrence Records



Ecoregions where the species occurs:

- [x] Ozark Highlands
- [x] Boston Mountains
- [x] Arkansas Valley
- [ ] Ouachita Mountains
- [x] South Central Plains
- [x] Mississippi Alluvial Plain
- [ ] Mississippi Valley Loess Plains



Habitat Map

Habitats

	Weight
Herbaceous Wetland	Optimal
Ponds, Lakes, and Water Holes	Suitable

Problems Faced

KNOWN PROBLEM: Loss of wetlands from conversion.	Threat: Habitat destruction or conversion Source: Agricultural practices
KNOWN PROBLEM: Loss of wetlands to invasive plant species.	Threat: Habitat destruction or conversion Source: Exotic species

Data Gaps/Research Needs

No data gaps or research needs were identified.

Conservation Actions

	Importance	Category
Protection of herbaceous wetlands.	High	Habitat Protection
Restoration of herbaceous wetlands.	High	Habitat Restoration/Improvement

Monitoring Strategies

Conduct secretive marshbird surveys using the North American Marsh Bird Survey Protocol outlined in the National Marsh Bird Survey Program.

Comments

This species has benefited by human-altered habitats such as flooded agricultural fields, reservoirs, and impoundments. However, for breeding they require permanently flooded marshes with robust emergent vegetation. They may be sensitive to wetland loss and invasive wetland plant species. Restoring or actively managing emergent wetlands will benefit this species. (Arkansas Audubon Society 2012, Bannor and Kiviat 2002, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, James and Neal 1986, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004)

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Haemorhous purpureus

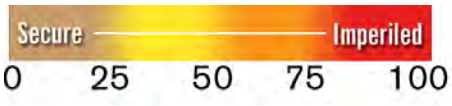
Purple Finch

Class: Aves

Order: Passeriformes

Family: Fringillidae

Priority Score: **19** **out of 100**



Population Trend: Decreasing

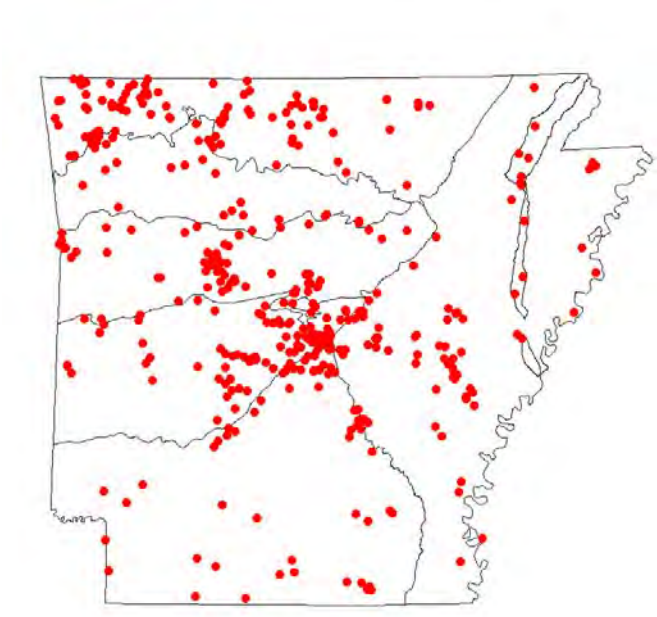
Residence: Winter

Global Rank: G5 — Secure

State Rank: S3N — Vulnerable nonbreeding species in Arkansas

Distribution

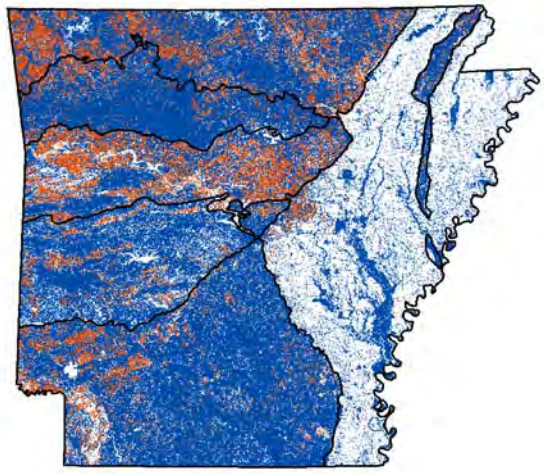
Occurrence Records



Ecoregions where the species occurs:

- ☑ Ozark Highlands
- ☑ Boston Mountains
- ☑ Arkansas Valley
- ☑ Ouachita Mountains
- ☑ South Central Plains
- ☑ Mississippi Alluvial Plain
- ☑ Mississippi Valley Loess Plains

Habitat Map



Haemorhous purpureus
Purple Finch

Habitats	Weight
Crowley's Ridge Loess Slope Forest	Suitable
Cultivated Forest	Suitable
Interior Highlands Calcareous Glade and Barrens	Suitable
Interior Highlands Dry Acidic Glade and Barrens	Suitable
Lower Mississippi Alluvial Plain Grand Prairie	Suitable
Lower Mississippi Flatwoods Woodland and Forest	Suitable
Lower Mississippi River Bottomland Depression	Suitable
Lower Mississippi River Dune Woodland, Pond, and Forest	Suitable
Lower Mississippi River High Bottomland Forest	Suitable
Lower Mississippi River Low Bottomland Forest	Suitable
Lower Mississippi River Riparian Forest	Suitable
Ouachita Montane Oak Forest	Suitable
Ozark-Ouachita Dry Oak and Pine Woodland	Suitable
Ozark-Ouachita Dry-Mesic Oak Forest	Suitable
Ozark-Ouachita Large Floodplain	Suitable
Ozark-Ouachita Mesic Hardwood Forest	Suitable
Ozark-Ouachita Pine/Bluestem Woodland	Suitable
Ozark-Ouachita Pine-Oak Forest/Woodland	Suitable
Ozark-Ouachita Prairie and Woodland	Suitable
Ozark-Ouachita Riparian	Suitable
Pasture Land	Marginal
Urban/Suburban	Suitable
West Gulf Coastal Plain Calcareous Prairie and Woodland	Suitable
West Gulf Coastal Plain Dry Pine-Hardwood Flatwoods	Suitable
West Gulf Coastal Plain Large River Floodplain Forest	Suitable
West Gulf Coastal Plain Mesic Hardwood Forest	Suitable
West Gulf Coastal Plain Pine-Hardwood Flatwoods	Suitable
West Gulf Coastal Plain Pine-Hardwood Forest	Suitable
West Gulf Coastal Plain Red River Floodplain Forest	Suitable

Haemorhous purpureus
Purple Finch

Habitats	Weight
West Gulf Coastal Plain Sandhill Oak and Shortleaf Pine Forest and Woodland	Suitable
West Gulf Coastal Plain Small Stream/River Forest	Suitable
West Gulf Coastal Plain Wet Hardwood Flatwoods	Suitable

Problems Faced

KNOWN PROBLEM: Competition with House Finch.	Threat: Extraordinary competition for resources Source: Exotic species
POTENTIAL PROBLEM: Extensive clearcutting on breeding grounds.	Threat: Habitat destruction Source: Forestry activities

Data Gaps/Research Needs

Determine wintering habitat preferences.

Conservation Actions	Importance	Category
Create open woodlands.	Low	Habitat Restoration/Improvement

Monitoring Strategies

Continue to conduct Christmas Bird Counts, Great Backyard Bird Count, and encourage the use of eBird.

Comments

Audubon's Christmas Bird Count data show this widespread winter resident has an irruptive yet declining trend in Arkansas. The decline is strongly associated with the spread of House Finches across eastern North America, indicating interspecific competition.

(Wooten 1996, National Audubon Society 2010)

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Hylocichla mustelina

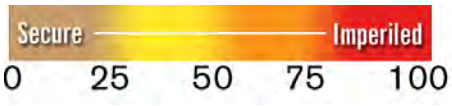
Wood Thrush

Class: Aves

Order: Passeriformes

Family: Turdidae

Priority Score: **19** **out of 100**



Population Trend: Decreasing

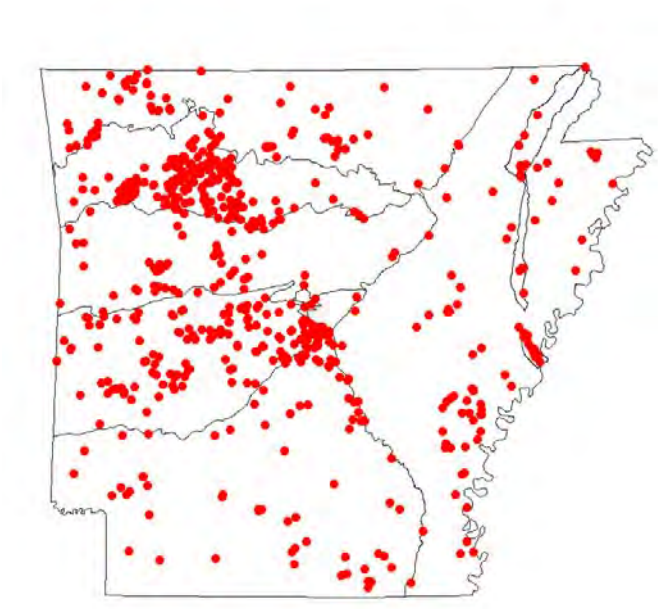
Residence: Breeding

Global Rank: G5 — Secure

State Rank: S3B — Vulnerable breeding species in Arkansas

Distribution

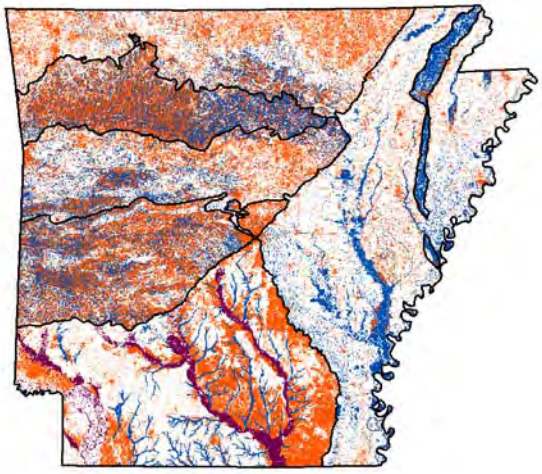
Occurrence Records



Ecoregions where the species occurs:

- ☑ Ozark Highlands
- ☑ Boston Mountains
- ☑ Arkansas Valley
- ☑ Ouachita Mountains
- ☑ South Central Plains
- ☑ Mississippi Alluvial Plain
- ☑ Mississippi Valley Loess Plains

Habitat Map



Hylocichla mustelina
Wood Thrush

Habitats	Weight
Crowley's Ridge Loess Slope Forest	Suitable
Cultivated Forest	Marginal
Lower Mississippi Flatwoods Woodland and Forest	Marginal
Lower Mississippi River High Bottomland Forest	Optimal
Lower Mississippi River Low Bottomland Forest	Suitable
Lower Mississippi River Riparian Forest	Suitable
Ouachita Montane Oak Forest	Marginal
Ozark-Ouachita Dry-Mesic Oak Forest	Marginal
Ozark-Ouachita Large Floodplain	Suitable
Ozark-Ouachita Mesic Hardwood Forest	Optimal
Ozark-Ouachita Pine-Oak Forest	Suitable
Ozark-Ouachita Riparian	Optimal
Urban/Suburban	Marginal
West Gulf Coastal Plain Dry Pine-Hardwood Flatwoods	Marginal
West Gulf Coastal Plain Large River Floodplain Forest	Optimal
West Gulf Coastal Plain Mesic Hardwood Forest	Optimal
West Gulf Coastal Plain Pine-Hardwood Forest	Suitable
West Gulf Coastal Plain Red River Floodplain Forest	Optimal
West Gulf Coastal Plain Small Stream/River Forest	Suitable
West Gulf Coastal Plain Wet Hardwood Flatwoods	Suitable

Problems Faced

KNOWN PROBLEM: Habitat fragmentation of extensive tracts of mature forest.	Threat: Habitat fragmentation Source: Urban development
KNOWN PROBLEM: Habitat fragmentation of extensive tracts of mature forest.	Threat: Habitat fragmentation Source: Agricultural practices
KNOWN PROBLEM: Habitat fragmentation of extensive tracts of mature forest.	Threat: Habitat fragmentation Source: Forestry activities
KNOWN PROBLEM: Habitat fragmentation of extensive tracts of mature forest.	Threat: Habitat fragmentation Source: Road construction
KNOWN PROBLEM: Habitat fragmentation of extensive tracts of mature forest.	Threat: Habitat fragmentation Source: Resource extraction
KNOWN PROBLEM: Increased nest predation by mesopredators as a result of habitat fragmentation.	Threat: Extraordinary predation/parasitism/disease Source: Predation
KNOWN PROBLEM: Increased parasitism by Brown-headed Cowbirds as a result of habitat fragmentation.	Threat: Extraordinary predation/parasitism/disease Source: Parasites/pathogens
PROTECTION PROBLEM: Lack of proper understory structure for nesting or post-fledging period.	Threat: Altered composition/structure Source: Forestry activities
PROTECTION PROBLEM: Lack of proper understory structure for nesting or post-fledgling period.	Threat: Alteration of natural fire regimes Source: Fire suppression

Data Gaps/Research Needs

Determine how fire and other forest management may affect suitability of forest patches for breeding (including predation and parasitism).
Determine how various habitats are used during various life stages.

Conservation Actions

	Importance	Category
Maintain forest cover across large landscapes.	High	Habitat Protection
Manage for species that produce high-lipid fruits during migration.	Low	Habitat Restoration/Improvement
Manage for understory development for nesting structure.	Medium	Habitat Restoration/Improvement
Provide matrix of forest conditions (early successional to mature) for various life stages.	Medium	Habitat Restoration/Improvement

Monitoring Strategies

The Partners in Flight North American Landbird Conservation Plan indicates that long-term population trend monitoring for this species is generally considered adequate, but some issues, such as bias, may not have been accounted for. Continue to conduct Breeding Bird Surveys at all routes established in Arkansas.

Comments

Its ethereal, flute-like voice is a trademark sound of the woods. Declining range wide. Typically requires extensive tracts of mature forest at the landscape scale, but this varies by location. At a more local scale, requires sites with hardwood understory and canopy overstory. Common to uncommon on the Ozark-St. Francis and Ouachita NF. Common in the Big Woods. Arkansas is on the western edge of its range. (Anders and others 1998, Annand and Thompson 1997, Artman and Downhower 2003, Baerg 1927, Clawson 1982, DeGraaf 1991, Dellinger et al. 2007, Duzan and others2003, 2003A, Evans and Kirkman 1980, Finch 1991, Finch and Stangel 1993, Fitzgerald 2000, Hamel 1992, Jacobs 2001, James 1971, James and Neal 1986, Keisner and Lindell 2007, Kellner Unpublished, Martin and Finch 1995, Pingjun 1994, Probst and Thompson 1996, Robbins and Easterla 1992, Robinson and others 1995, Roth and others 2011, Salveter 1994, Thompson 1995, Thompson and Fritzell 1990, Thompson and others 1995, 1996)

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Ixobrychus exilis

Least Bittern

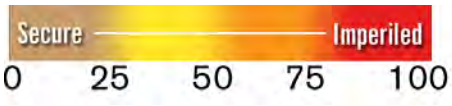
©Jeff R. Wilson

Class: Aves

Order: Ciconiiformes

Family: Ardeidae

Priority Score: 19 out of 100



Population Trend: Unknown

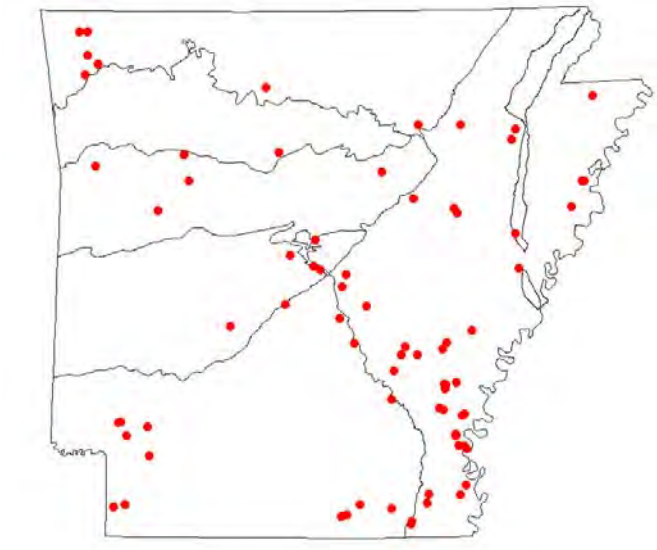
Residence: Breeding

Global Rank: G5 — Secure

State Rank: S2B — Imperiled breeding species in Arkansas

Distribution

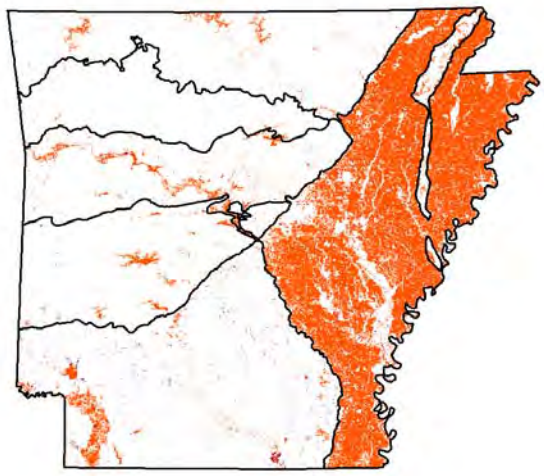
Occurrence Records



Ecoregions where the species occurs:

- ☑ Ozark Highlands
- ☑ Boston Mountains
- ☑ Arkansas Valley
- ☑ Ouachita Mountains
- ☑ South Central Plains
- ☑ Mississippi Alluvial Plain
- ☑ Mississippi Valley Loess Plains

Habitat Map



Habitats	Weight
Crop Land	Marginal
Herbaceous Wetland	Optimal
Ponds, Lakes, and Water Holes	Marginal

Problems Faced

KNOWN PROBLEM: Conversion of emergent and herbaceous wetlands to bottomland hardwoods.	Threat: Habitat destruction or conversion Source: Forestry activities
KNOWN PROBLEM: Loss of wetlands from conversion.	Threat: Habitat destruction or conversion Source: Agricultural practices
KNOWN PROBLEM: Loss of wetlands to invasive plant species.	Threat: Habitat destruction or conversion Source: Exotic species
KNOWN PROBLEM: Vulnerable to toxins and contaminants resulting from agricultural run-off.	Threat: Toxins/contaminants Source: Agricultural practices

Data Gaps/Research Needs

No data gaps or research needs were identified.

Conservation Actions	Importance	Category
Maintain herbaceous wetlands.	High	Habitat Protection
Restore herbaceous wetlands.	High	Habitat Restoration/Improvement

Monitoring Strategies

Conduct secretive marshbird surveys using the North American Marsh Bird Survey Protocol outlined in the National Marsh Bird Survey Program.

Comments

This secretive bird can be found in high densities in quality habitat. The availability of large, shallow wetlands with dense emergent vegetation is a limiting factor for this species in Arkansas. Loss of large, shallow wetlands with dense emergent vegetation and pollution are major threats. Minor modification to habitat management plans for waterfowl can increase available habitat. (Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Gibbs and others 1992B, Hamel 1992, James and Neal 1986, Kushlan and others 2002, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004)

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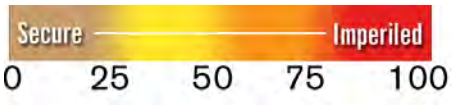
Lanius ludovicianus

Loggerhead Shrike

Class: Aves
Order: Passeriformes
Family: Laniidae

Priority Score: **24** **out of 100**



Population Trend: Decreasing

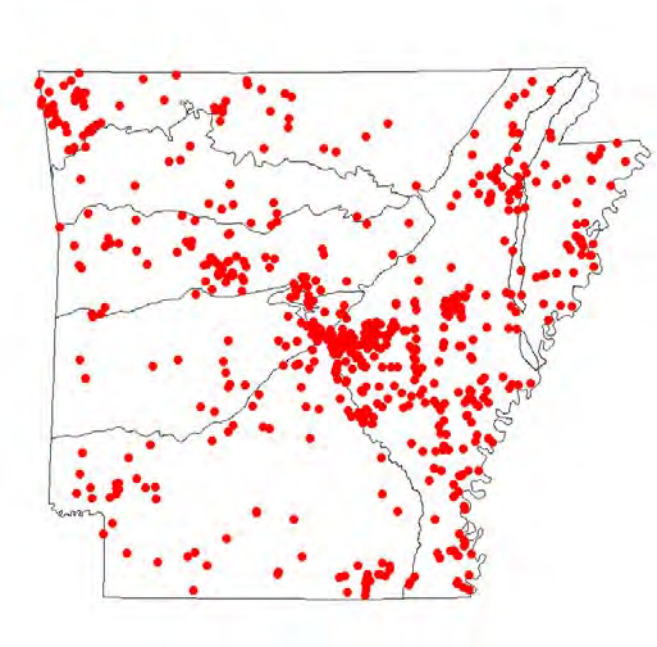
Residence: Permanent

Global Rank: G4 — Apparently secure species

State Rank: S3 — Vulnerable in Arkansas

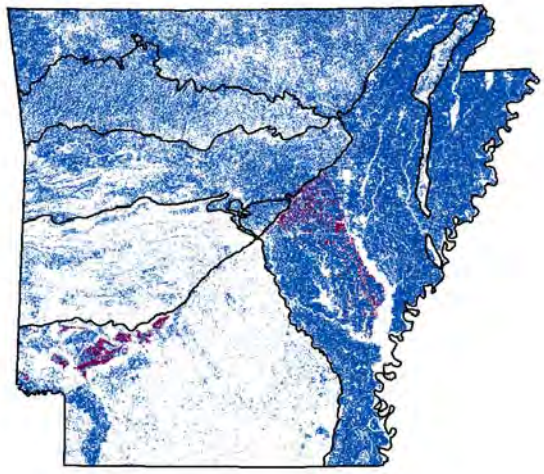
Distribution

Occurrence Records



Ecoregions where the species occurs:

- ☑ Ozark Highlands
- ☑ Boston Mountains
- ☑ Arkansas Valley
- ☑ Ouachita Mountains
- ☑ South Central Plains
- ☑ Mississippi Alluvial Plain
- ☑ Mississippi Valley Loess Plains



Habitat Map

Habitats

	Weight
	Optimal
Crop Land	Suitable
Lower Mississippi Alluvial Plain Grand Prairie	Optimal
Ozark-Ouachita Cliff and Talus	Suitable
Ozark-Ouachita Prairie and Woodland	Optimal
Pasture Land	Suitable

Problems Faced

KNOWN PROBLEM: Lack of grassland with shrub component.	Threat: Habitat destruction Source: Agricultural practices
KNOWN PROBLEM: Post-fledging mortality from car strikes.	Threat: Collision with man-made structures Source: Road construction
POTENTIAL PROBLEM: Pesticides.	Threat: Toxins/contaminants Source: Agricultural practices

Data Gaps/Research Needs

Conduct additional studies of pesticides, toxins, and heavy metals effects on Loggerhead Shrikes.
Determine causes of mortality in both resident and migrant populations.
Determine the role of shrike and automobile collisions in population declines of shrikes in Arkansas.
Study foraging success of resident versus migrant birds in the winter to determine if changes in the quality of winter habitat may affect migrant populations.

Conservation Actions

	Importance	Category
Maintain grassland with shrub component.	High	Habitat Protection
Plant or maintain low, thick shrubs and trees along fencerows and throughout otherwise open pastures and fields to improve nesting habitat.	Medium	Habitat Restoration/Improvement
Protect trees and shrubs used for nesting and perches from cattle grazing and rubbing.	Medium	Habitat Protection
Restore grassland with shrub component.	High	Habitat Restoration/Improvement
Restore native grasslands.	Medium	Habitat Restoration/Improvement

Monitoring Strategies

The Partners in Flight North American Landbird Conservation Plan indicates that long-term population trend monitoring for this species is generally considered adequate, but some issues, such as bias, may not have been accounted for. Continue to conduct Breeding Bird Surveys at all routes established in Arkansas. Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

This predatory bird impales its prey (insects, rodents, birds) on sharp objects like thorns and barbed wire. This allows it to eat prey without the benefit of strong, taloned feet that raptors use for holding prey. It also serves to advertise its territory and attract mates. It inhabits open country that includes scattered trees and shrubs or fencerows. Populations are correlated with the amount of pasture land. Habitat is available, yet the species is declining. More study is needed to identify sources of the decline. (Arkansas Audubon Society 2005, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Duzan and others 2003, Hamel 1992, James and Neal 1986, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004, Yosef 1996)

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Limnodromus griseus

Short-billed Dowitcher

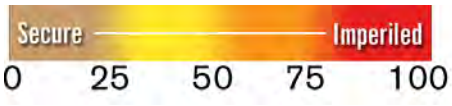

©U.S. Fish and Wildlife Service

Class: Aves

Order: Charadriiformes

Family: Scolopacidae

Priority Score: **19** **out of 100**



Population Trend: Decreasing

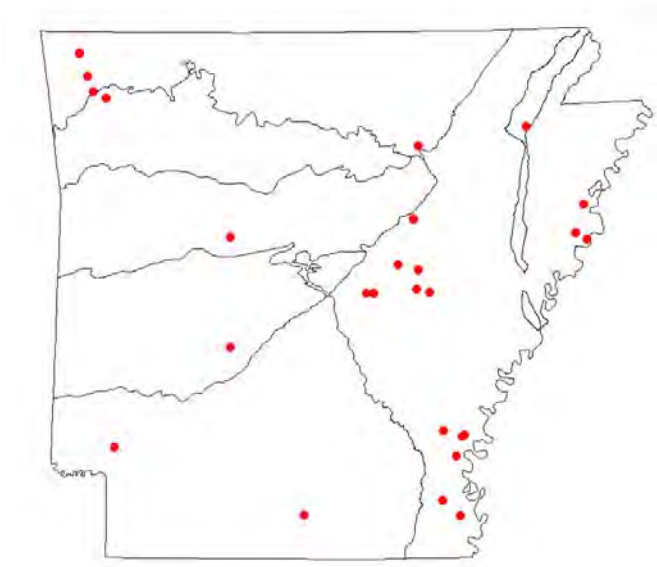
Residence: Transient

Global Rank: G5 — Secure

State Rank: S3N — Vulnerable nonbreeding species in Arkansas

Distribution

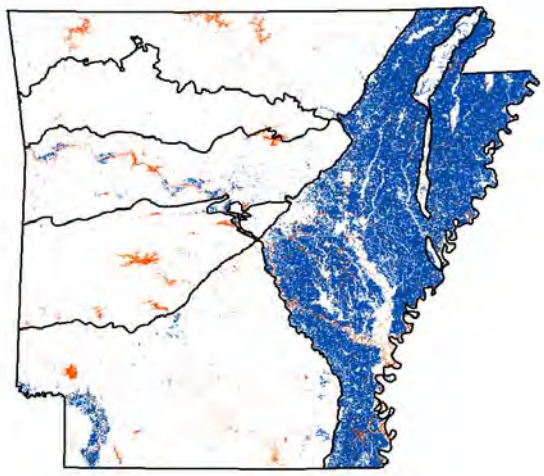
Occurrence Records



Ecoregions where the species occurs:

- ☑ Ozark Highlands
- ☑ Boston Mountains
- ☑ Arkansas Valley
- ☑ Ouachita Mountains
- ☑ South Central Plains
- ☑ Mississippi Alluvial Plain
- ☑ Mississippi Valley Loess Plains

Habitat Map



Habitats	Weight
Crop Land	Suitable
Mud Flats	Optimal
Ponds, Lakes, and Water Holes	Marginal

Problems Faced

KNOWN PROBLEM: Lack of mud flat habitat.	Threat: Habitat destruction or conversion Source: Agricultural practices
KNOWN PROBLEM: Lack of mud flats during migration as a result of hydrological alteration.	Threat: Hydrological alteration Source: Water diversion

Data Gaps/Research Needs

Conservation Actions	Importance	Category
Draw down fish ponds to create mud flat habitat in July - November.	High	Habitat Restoration/Improvement
Flood cropland in summer and early fall after harvest.	High	Habitat Restoration/Improvement
Manipulate federal and state managed moist-soil units to provide mud flat habitat during March-early June and, if possible, during July - November.	Medium	Habitat Restoration/Improvement
Manipulate reservoirs (private and publicly owned) to provide mud flat habitat during July - November migration, and, if possible, during March-early June migration.	Medium	Habitat Restoration/Improvement
Restore mud flats.	High	Habitat Restoration/Improvement

Monitoring Strategies

Initiate late summer - fall migration counts in the Mississippi Alluvial Valley and the West Gulf Coastal Plain, coordinated through Lower Mississippi Valley Joint Venture.

Comments

This species is seen in the state April-October. They are often seen in association with the more numerous Long-billed Dowitchers and Stilt Sandpipers, and tend to forage in shallow water rather than exposed mud. This species is listed as a species of high concern by the U.S. Shorebird Conservation Plan. While population size is difficult to determine, it is thought to be relatively abundant. Proper management of water levels on wetlands, artificial impoundments, and flooded agricultural fields can provide critical stopover habitat during migration.

Commercial aquaculture facilities are important stopover sites for this species and many other shorebirds (Lehnen and Krementz 2013). The decline of fish pond acreage in the state from 60,000 surface acres in 2002 to less than 30,000 acres in 2012 is alarming (personal communication Dr. Carole Engle, UAPB). Water management strategies have changed at many of the remaining facilities because of increased efficiency. Emphasis should be placed on programs that would encourage fish farmers to provide shallow-water habitat for extended periods of time.

Additionally, management plans for reservoirs (ex. Chicot, Millwood) and moist-soil impoundments (AGFC, USFWS, private) could be altered to provide additional benefit to many shorebirds that rely on mud flat habitat. Deeper water that is drawn down slowly typically provides more invertebrates than very recently flooded water.

(Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, James and Neal 1986, Jehl and others 2001, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004, U.S. Shorebird Conservation Plan 2004)

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Limnothlypis swainsonii

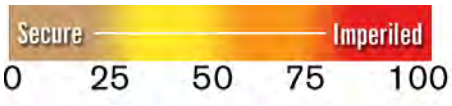
Swainson's Warbler

Class: Aves

Order: Passeriformes

Family: Parulidae

Priority Score: **19** **out of 100**



Population Trend: Unknown

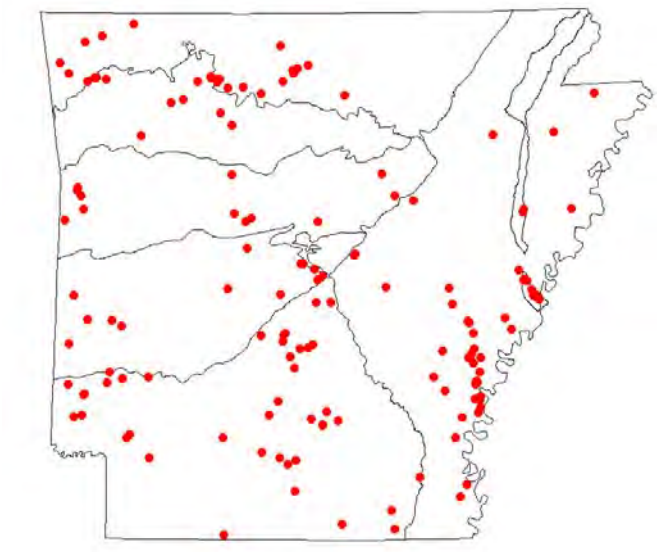
Residence: Breeding

Global Rank: G4 — Apparently secure species

State Rank: S3B — Vulnerable breeding species in Arkansas

Distribution

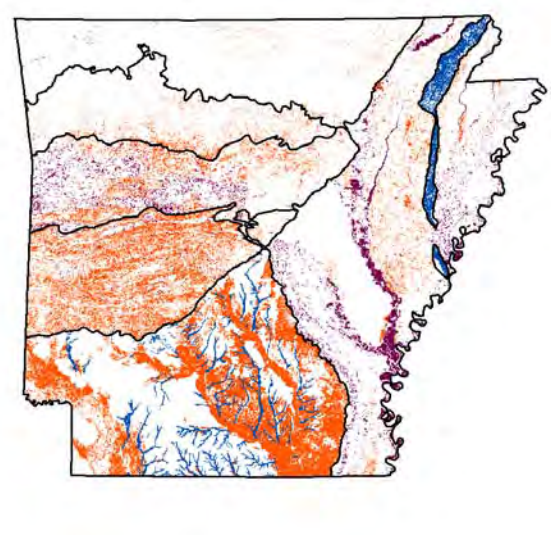
Occurrence Records



Ecoregions where the species occurs:

- ☑ Ozark Highlands
- ☑ Boston Mountains
- ☑ Arkansas Valley
- ☑ Ouachita Mountains
- ☑ South Central Plains
- ☑ Mississippi Alluvial Plain
- ☑ Mississippi Valley Loess Plains

Habitat Map



Habitats	Weight
Crowley's Ridge Loess Slope Forest	Suitable
Cultivated Forest	Marginal
Lower Mississippi Flatwoods Woodland and Forest	Marginal
Lower Mississippi River High Bottomland Forest	Suitable
Lower Mississippi River Riparian Forest	Optimal
Ozark-Ouachita Large Floodplain	Data Gap
Ozark-Ouachita Riparian	Marginal
West Gulf Coastal Plain Large River Floodplain Forest	Marginal
West Gulf Coastal Plain Mesic Hardwood Forest	Marginal
West Gulf Coastal Plain Red River Floodplain Forest	Marginal
West Gulf Coastal Plain Small Stream/River Forest	Suitable
West Gulf Coastal Plain Wet Hardwood Flatwoods	Marginal

Problems Faced

KNOWN PROBLEM: Lack of understory and midstory and loss of midseral stages interspersed with more mature woodlands due to even-aged forest management.	Threat: Altered composition/structure Source: Forestry activities
KNOWN PROBLEM: Loss of dense understory component of riparian/floodplain forest.	Threat: Altered composition/structure Source: Dam
KNOWN PROBLEM: Loss of dense understory component of riparian/floodplain forest.	Threat: Alteration of natural fire regimes Source: Fire suppression
KNOWN PROBLEM: Loss of giant cane habitat.	Threat: Habitat destruction Source: Conversion of riparian forest
POTENTIAL PROBLEM: Nesting failure caused by flooding.	Threat: Hydrological alteration Source: Dam
POTENTIAL PROBLEM: Parasitism by Brown-headed Cowbirds.	Threat: Extraordinary predation/parasitism/disease Source: Parasites/pathogens

Data Gaps/Research Needs

Determine post- fledging survival.
Determine distribution and abundance.
Determine importance of regenerating forests.
Evaluate management practices to create breeding habitat.

Conservation Actions

	Importance	Category
Manage for dense understory and ground cover.	High	Habitat Restoration/Improvement
Manage for unevenaged forests using group selection harvest or evenaged management with small clearcuts.	High	Habitat Restoration/Improvement
Protect and restore tracts to increase bottomland forest block size and provide connectivity.	High	Habitat Protection
Restore canebrake habitats.	High	Habitat Restoration/Improvement

Monitoring Strategies

The Partners in Flight North American Landbird Conservation Plan indicates that long-term population trend monitoring for this species is generally considered adequate, but some issues, such as bias, may not have been accounted for. Continue to conduct Breeding Bird Surveys at all routes established in Arkansas. Expand effort to locate new breeding populations. Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

The Swainson's Warbler is closely associated with canebrakes in bottomland hardwoods, but also utilizes regenerating clearcuts (hardwood or pine). It utilizes dense thickets within large contiguous forests of various age classes and composition that have occasional canopy gaps, high leaf litter, and a sparse herbaceous layer. Loss and fragmentation of bottomland hardwood forests and associated canebrakes is a source of decline. Cowbird nest parasitism is high in the Dale Bumpers White River NWR and Crowley's Ridge. The species distribution and abundance in regenerating forests of Arkansas is poorly understood. (Anich and others 2010, Brown and Dickson 1994, Carrie 1996, Clawson 1982, Duzan and others 2003, 2003A, Evans and Kirkman 1980, Fitzgerald 2000, Graves 2002, Graves 2014, Hamel 1992, Jacobs 2001, James and Neal 1986, Martin and Finch 1995, Robbins and Easterla 1992)

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Nyctanassa violacea

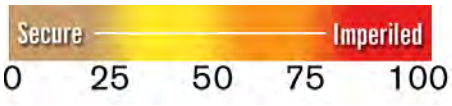
Yellow-crowned Night-Heron

Class: Aves

Order: Pelicaniformes

Family: Ardeidae

Priority Score: **24** **out of 100**



Population Trend: Decreasing

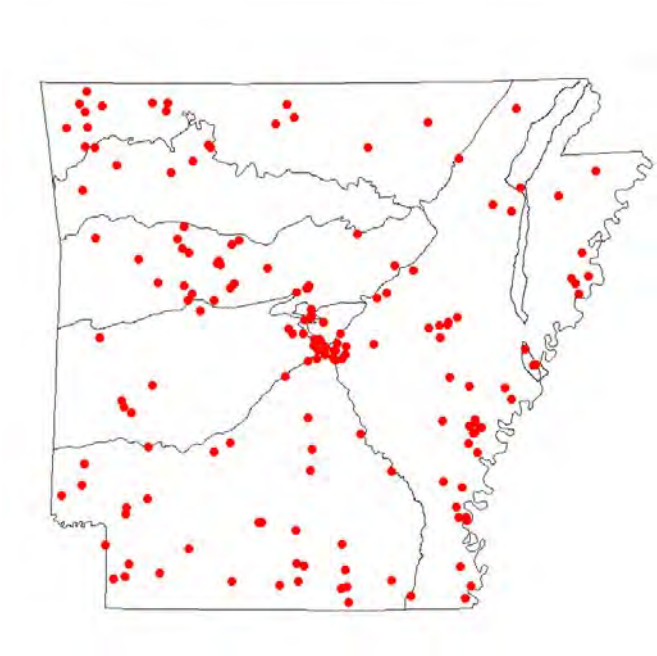
Residence: Breeding

Global Rank: G5 — Secure

State Rank: S2B — Imperiled breeding species in Arkansas

Distribution

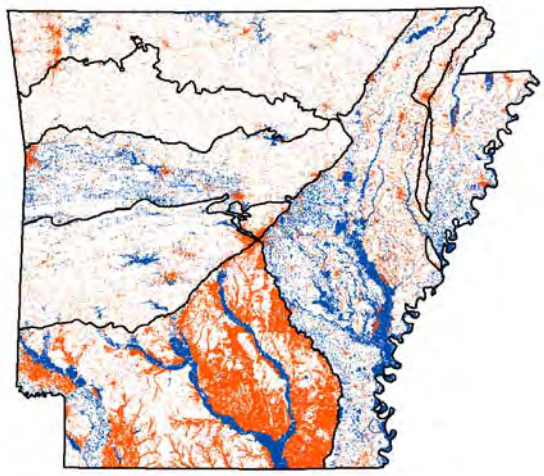
Occurrence Records



Ecoregions where the species occurs:

- ☑ Ozark Highlands
- ☑ Boston Mountains
- ☑ Arkansas Valley
- ☑ Ouachita Mountains
- ☑ South Central Plains
- ☑ Mississippi Alluvial Plain
- ☑ Mississippi Valley Loess Plains

Habitat Map



Habitats	Weight
Lower Mississippi Alluvial Plain Grand Prairie	Suitable
Lower Mississippi Flatwoods Woodland and Forest	Marginal
Lower Mississippi River Bottomland Depression	Suitable
Lower Mississippi River High Bottomland Forest	Marginal
Lower Mississippi River Low Bottomland Forest	Suitable
Lower Mississippi River Riparian Forest	Suitable
Ozark-Ouachita Large Floodplain	Suitable
Ozark-Ouachita Prairie and Woodland	Data Gap
Ozark-Ouachita Riparian	Marginal
Ponds, Lakes, and Water Holes	Suitable
Urban/Suburban	Marginal
West Gulf Coastal Plain Large River Floodplain Forest	Suitable
West Gulf Coastal Plain Red River Floodplain Forest	Suitable
West Gulf Coastal Plain Small Stream/River Forest	Marginal

Problems Faced

KNOWN PROBLEM: Conflicts with aquaculture.	Threat: Extraordinary competition for resources Source: Confined animal operations
KNOWN PROBLEM: Degradation and loss of breeding and foraging habitat.	Threat: Habitat destruction or conversion Source: Agricultural practices
POTENTIAL PROBLEM: Vulnerability to toxins and contaminants from agricultural run-off.	Threat: Toxins/contaminants Source: Agricultural practices

Data Gaps/Research Needs

Home range estimates on wintering grounds are needed.

Conservation Actions

	Importance	Category
Improve breeding and foraging habitat.	High	Habitat Restoration/Improvement
Reduce depredation on aquaculture facilities.	High	Public Relations/Education
Reduce threats posed by toxins/contaminants.	Low	Threat Abatement

Monitoring Strategies

Initiate systematic ground surveys in high productive habitat during breeding season. Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

This species forages from dusk to dawn. Because it specializes on crustaceans, it can conflict with aquaculture farmers. This species is generally abundant and widespread, though restricted to areas near water because of its food requirements. Protection of forested wetland habitat and reducing conflicts between birds and farmers and between nest colonies and the neighborhoods in which they nest are important conservation measures. (Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, Hunter and Patrick 2003, James and Neal 1986, Kushlan and others 2002, Layher 1993, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004, Watts 1995)

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Nycticorax nycticorax

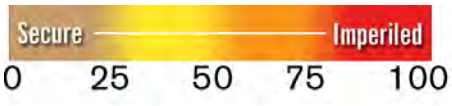
Black-crowned Night-Heron

Class: Aves

Order: Pelicaniiformes

Family: Ardeidae

Priority Score: **19** **out of 100**



Population Trend: Stable

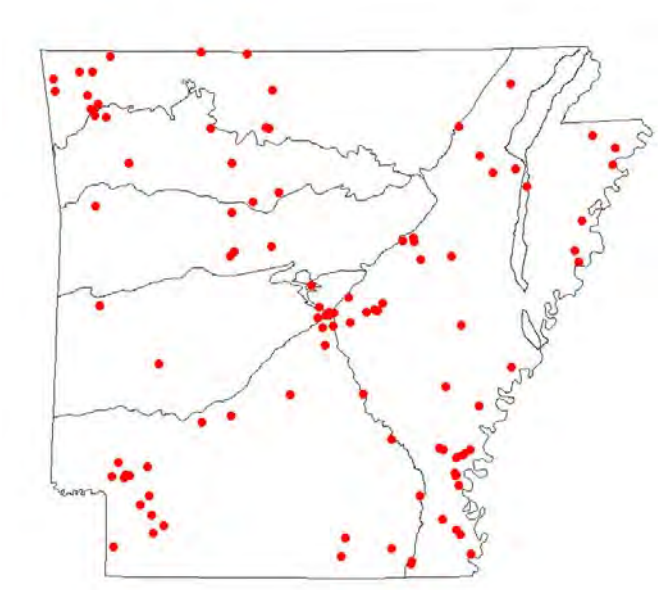
Residence: Permanent

Global Rank: G5 — Secure

State Rank: S2B — Imperiled breeding species in Arkansas

Distribution

Occurrence Records



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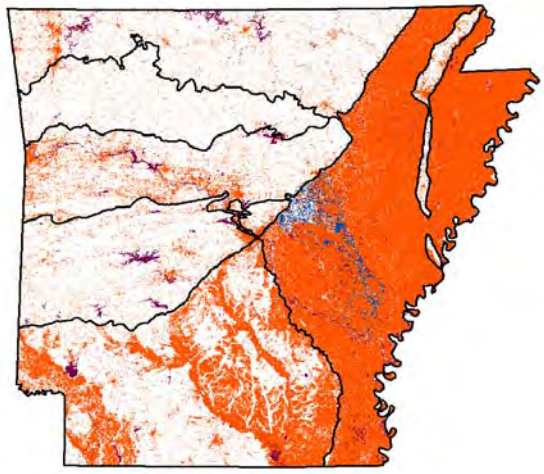

Habitat Map

Habitats	Weight
Crop Land	Marginal
Herbaceous Wetland	Optimal
Lower Mississippi Alluvial Plain Grand Prairie	Suitable
Lower Mississippi Flatwoods Woodland and Forest	Marginal
Lower Mississippi River Bottomland Depression	Suitable
Lower Mississippi River High Bottomland Forest	Marginal
Lower Mississippi River Low Bottomland Forest	Marginal
Lower Mississippi River Riparian Forest	Marginal
Mud Flats	Suitable
Ozark-Ouachita Large Floodplain	Marginal
Ozark-Ouachita Prairie and Woodland	Suitable
Ponds, Lakes, and Water Holes	Optimal
Urban/Suburban	Marginal
West Gulf Coastal Plain Large River Floodplain Forest	Marginal
West Gulf Coastal Plain Red River Floodplain Forest	Marginal

Problems Faced

KNOWN PROBLEM: Loss of emergent wetland habitat.	Threat: Habitat destruction or conversion Source: Agricultural practices
KNOWN PROBLEM: Loss of emergent wetland habitat.	Threat: Habitat destruction Source: Forestry activities
KNOWN PROBLEM: Nest failure resulting from mammalian predation.	Threat: Extraordinary predation/parasitism/disease Source: Predation
POTENTIAL PROBLEM: Conflicts with aquaculture.	Threat: Extraordinary competition for resources Source: Confined animal operations

Data Gaps/Research Needs

Determine impacts of contaminants, toxins, and heavy metals on reproduction.
Identify distribution of nesting colonies.
Identify non-lethal control strategies for aquaculture depredation.
Research effects of depredation on aquaculture.

Conservation Actions

	Importance	Category
Buffer nest sites to prevent human disturbance from causing nest abandonment and nestling mortality.	Medium	Habitat Protection
Buffer nest sites to prevent human disturbance from causing nest abandonment and nestling mortality.	Medium	Public Relations/Education
Reduce depredation on aquaculture.	Medium	Public Relations/Education
Reduce threats posed by toxins/contaminants.	Low	Threat Abatement
Restore emergent wetland habitat.	High	Habitat Restoration/Improvement

Monitoring Strategies

Conduct inventories for colonial waterbirds, particularly rookery counts, as a part of the North American Colonial Waterbird Monitoring Program coordinated by the Waterbird Conservation for the Americas Bird Initiative. Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

A widespread, abundant, colonial nester which will nest in suburban areas in Arkansas. An excellent indicator of environmental quality, this species has recovered following the banning of DDT but may be impacted by other environmental contaminents. It is an opportunistic forager and eats a wide variety of prey, including fish and crawfish. This can put it in conflict with aquaculture farms. More study is needed to determine what effect this and other wading birds have on commercial harvest. (Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Davis 1993, Hamel 1992, Hunter and Patrick 2003, James and Neal 1986, Kushlan and others 2002, Layher 1993, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004)

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