Accipiter striatus

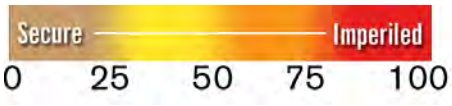
Sharp-shinned Hawk

Class: Aves

Order: Accipitriformes

Family: Accipitridae

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



Population Trend: Decreasing

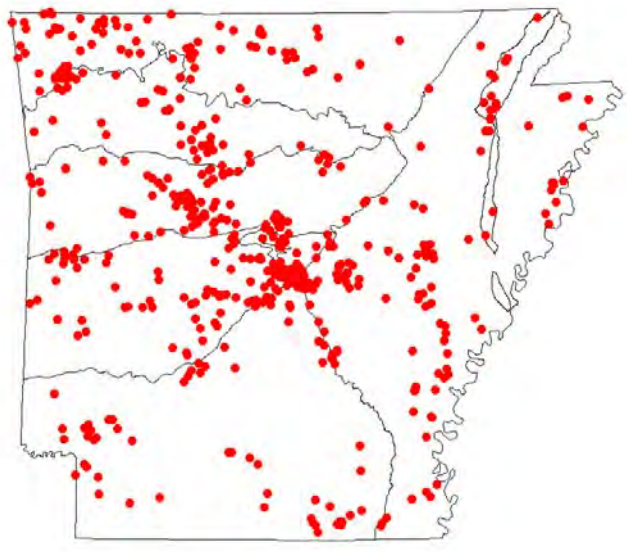
Residence: Breeding

Global Rank: G5 — Secure

State Rank: S3 — Vulnerable in Arkansas

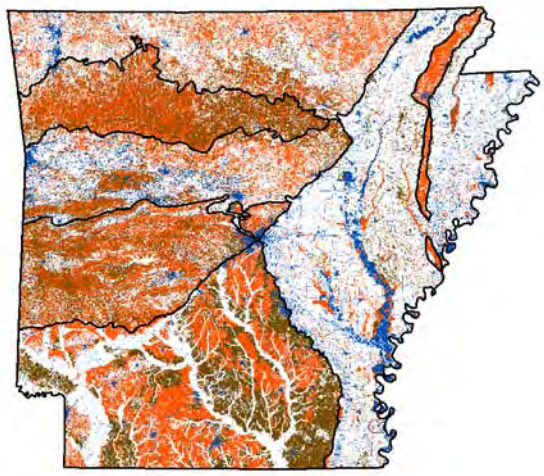
Distribution

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
Crowley's Ridge Loess Slope Forest	Marginal
Cultivated Forest	Suitable
Lower Mississippi Flatwoods Woodland and Forest	Marginal
Lower Mississippi River Bottomland Depression	Marginal
Lower Mississippi River Dune Woodland, Pond, and Forest	Marginal
Lower Mississippi River High Bottomland Forest	Suitable
Lower Mississippi River Low Bottomland Forest	Marginal
Ozark-Ouachita Dry Oak and Pine Woodland	Marginal
Ozark-Ouachita Dry-Mesic Oak Forest/Woodland	Marginal
Ozark-Ouachita Forested Seep	Marginal
Ozark-Ouachita Mesic Hardwood Forest	Suitable
Ozark-Ouachita Pine-Bluestem Woodland	Marginal
Ozark-Ouachita Pine-Oak Forest/Woodland - Woodland Condition	Suitable
Ozark-Ouachita Prairie and Woodland	Marginal
Urban/Suburban	Suitable
West Gulf Coastal Plain Pine-Hardwood Flatwoods	Data Gap
West Gulf Coastal Plain Pine-Hardwood Forest/Woodland	Data Gap
West Gulf Coastal Plain Sandhill Oak and Shortleaf Pine Forest/Woodland	Data Gap

Accipiter striatus
Sharp-shinned Hawk

Problems Faced

KNOWN PROBLEM: Collisions with windows near bird feeders.	Threat: Collision with man-made structures Source: Recreation
POTENTIAL PROBLEM: Mortality and lowered reproductive success due to pesticides, toxins, and heavy metals.	Threat: Toxins/contaminants Source: Municipal/Industrial point source
POTENTIAL PROBLEM: Mortality and lowered reproductive success due to pesticides, toxins, and heavy metals.	Threat: Toxins/contaminants Source: Agricultural practices
POTENTIAL PROBLEM: Mortality and lowered reproductive success due to pesticides, toxins, and heavy metals.	Threat: Toxins/contaminants Source: Non-point source pollution

Data Gaps/Research Needs

Determine the effect of forest management practices and habitat degradation due to agriculutural and urban/suburban development on foraging, wintering, and breeding habitat.
Determine the effect of logging on nest locations and the use of buffers, including appropriate buffer diameter, around nest sites.
Determine the effects of prescribed fire on nesting habitat.
Information is needed on breeding distribution and abundance.

Conservation Actions

	Importance	Category
Reduce window collisions near bird feeding stations.	Medium	Threat Abatement
Reduce window collisions near bird feeding stations.	Medium	Public Relations/Education

Monitoring Strategies

This species is rarely seen during the breeding season outside of forest canopies, making it one of the most difficult raptors to census in Arkansas. Monitoring should include encouraging birders to search for nests in specific woodland habitats, especially mature dense pine stands and mixed pine-hardwood forests, and to report sightings and nests to the Arkansas Audubon Society Rare Bird Report and eBird.

Comments

Sharp-shinned Hawks are rarely-seen nesters that breed mainly in large stands of decidous, coniferous, and mixted pine-hardwood forests and pine plantations. Often referred to by Arkansans as the "Blue Darter," sharp-shinned hawks feed primarily on small birds. The size of a Blue Jay, these small accipiters are built for bursts of speed with a long narrow tail and short, round wings. They are often observed capturing prey at backyard bird feeders, often to the dismay of homeowners. Little is known about the distribution of and impacts of forest management on "sharpies" in Arkansas.

(Douglas and Neal 1986, Bildstein and Meyer 2000)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Aimophila ruficeps

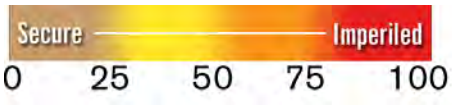
Rufous-crowned Sparrow

Class: Aves

Order: Passeriformes

Family: Emberizidae

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



Population Trend: Stable

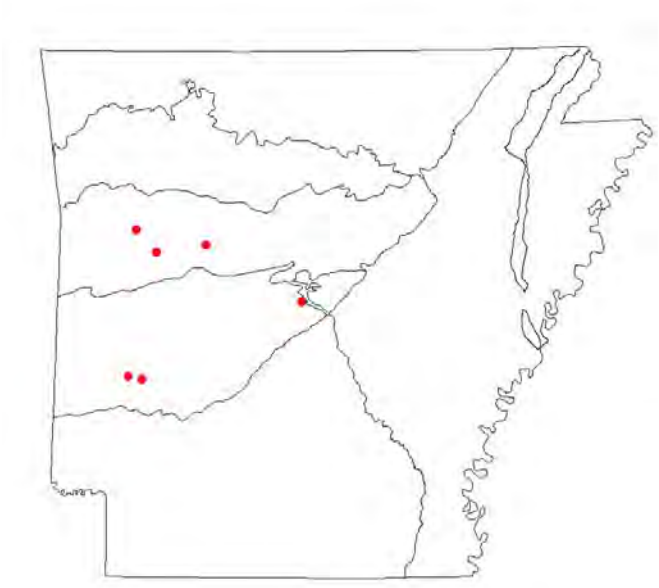
Residence: Breeding

Global Rank: G5 — Secure

State Rank: S1 — Critically imperiled in Arkansas

Distribution

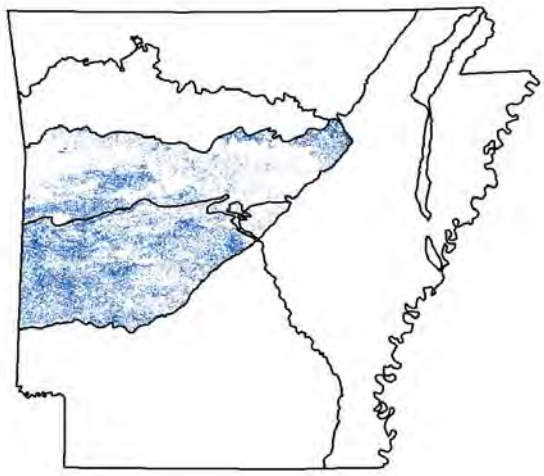
Occurrence Records



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
Interior Highlands Dry Acidic Glade and Barrens	Suitable

Problems Faced

KNOWN PROBLEM: Loss of habitat due to fire suppression.	Threat: Alteration of natural fire regimes Source: Fire suppression

Data Gaps/Research Needs

Determine the effects of fire or mechanical thinning on populations.

Conservation Actions

	Importance	Category
Conduct prescribed burns.	Medium	Habitat Restoration/Improvement
Thin forests and maintain scrub habitat along blufflines.	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. However, because this species is so secretive and habitat-specific, targeted monitoring is required, e.g. use of playback to elecit a response. The single remaining populationin the state, located on Mount Magazine, should be monitored annually.Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

Primarily a bird of the southwestern US and Mexico, this species has been found on a few mountaintops in central and western Arkansas, along south-facing bluff lines where open forest mixed with grass and rocky outcrops provides preferred habitat. Mount Magazine (Logan Co.) is currently the only occupied site in the state and is the species' eastern-most breeding population range wide. Previously occupied sites were: Pinnacle Mountain (Pulaski Co.), Mount Nebo (Yell Co.), Horseshoe Mountain (Franklin Co.), Redland Mountain (Pike Co.), and Paul Mountain (Montgomery Co.). Habitat restoration efforts should focus on these or similar sites. Isolated populations in Arkansas and elswhere in the species's range suggest it has good dispersal abilities and thus the potential to recolonize following restoration. However, the shy and secretive nature of this species makes it difficult to study. (Arkansas Audubon Society 2012, Carter and others 2000, Collins 1999, CWCS 2004, CWCS 2005A, CWCS 2005B, eBird 2014, Hamel 1992, James and Neal 1986, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Ammodramus henslowii

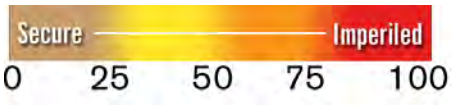
Henslow's Sparrow

Class: Aves

Order: Passeriformes

Family: Emberizidae

Priority Score: **33** **out of 100**



Population Trend: Decreasing

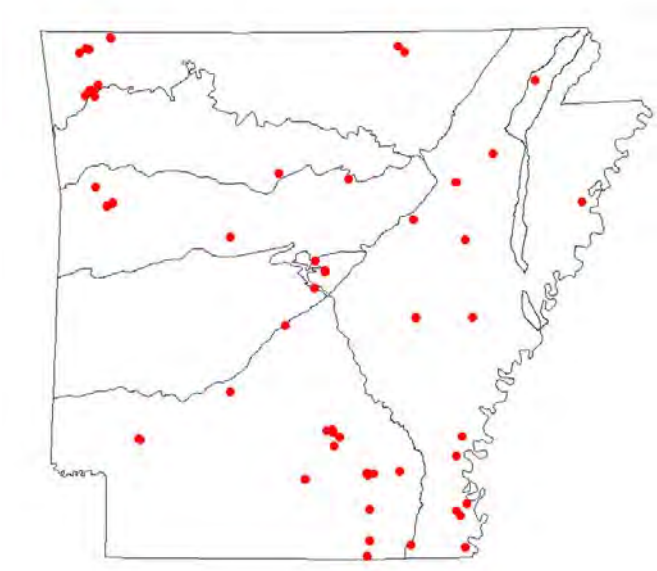
Residence: Permanent

Global Rank: G4 — Apparently secure species

State Rank: S1B,S2N — Critically imperiled breeding, imperiled nonbreeding species in Arkansas

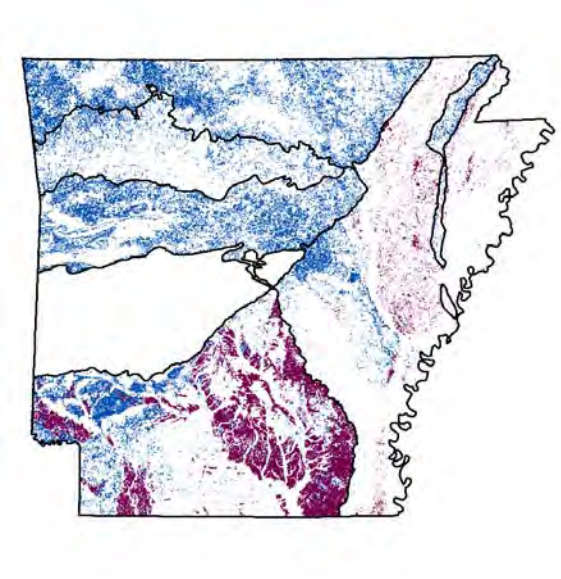
Distribution

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
- [x] Mississippi Valley Loess Plains



Habitat Map

Habitats

	Weight
Lower Mississippi Alluvial Plain Grand Prairie	Suitable
Ozark-Ouachita Prairie and Woodland	Optimal
Pasture Land	Suitable
West Gulf Coastal Plain Calcareous Prairie and Woodland	Suitable
West Gulf Coastal Plain Pine-Hardwood Flatwoods	Optimal

Problems Faced

KNOWN PROBLEM: Habitat loss due to conversion of pasture and hayfields to other uses.	Threat: Habitat destruction or conversion Source: Agricultural practices
KNOWN PROBLEM: Habitat loss due to natural succession related to fire suppression.	Threat: Habitat destruction or conversion Source: Fire suppression
KNOWN PROBLEMS: Nest failure from destruction of nests due to earlier and more frequent haying.	Threat: Biological alteration Source: Agricultural practices
POTENTIAL PROBLEM: Habitat loss due to urbanization.	Threat: Habitat destruction or conversion Source: Urban development

Data Gaps/Research Needs

Surveys for breeding Henslow's Sparrows need to be conducted in grasslands over a wider area in the Arkansas Valley and the Ozarks.

Conservation Actions

	Importance	Category
Acquire important tracts to provide increased block size and connectivity of grassland habitat.	High	Land Acquisition
Disturb grasslands every 2-4 years.	High	Fire Management
Establish large blocks of grassland habitat.	High	Habitat Restoration/Improvement
Establish large blocks of grassland habitat.	High	Habitat Restoration/Improvement
Restore native grasslands.	Medium	Habitat Restoration/Improvement

Monitoring Strategies

Known populations should be monitored periodically to assess population trends. Surveys should be conducted in potential breeding and wintering habitat to search for additional populations. Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

Small breeding season populations of Henslow's sparrows occur in tallgrass prairie remnants of northwest Arkansas. Protection, management, or restoration of privately owned tracts of tallgrass prairie through farm bill programs or other means would likely increase available breeding habitat. Larger populations occur in the winter in southern Arkansas, with the greatest number observed in saline glades within pine flatwoods of the Ouachita Terraces. Restoration of pine flatwoods structure to savanna and open woodlands may provide additional winter habitat, as would increased protection, management or restoration of calcareous prairie in southwestern portions of the state. (Arkansas Audubon Society 2012, Bechtoldt and Stouffer. 2005, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Cooper and others 2007, Herkert and others 2002, Hamel 1992, Holimon and others 2004, Holimon and others 2008, James and Neal 1986, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Ammodramus leconteii

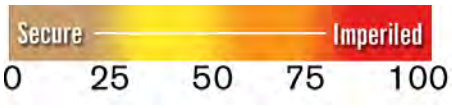
Le Conte's Sparrow

Class: Aves

Order: Passeriformes

Family: Emberizidae

Priority Score: 21 **out of 100**



Population Trend: Decreasing

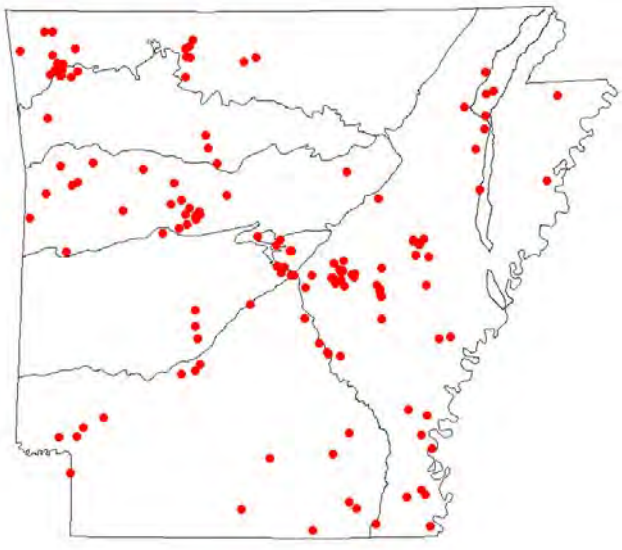
Residence: Winter

Global Rank: G4 — Apparently secure species

State Rank: S3S4N — Vulnerable nonbreeding species in Arkansas (uncertain rank)

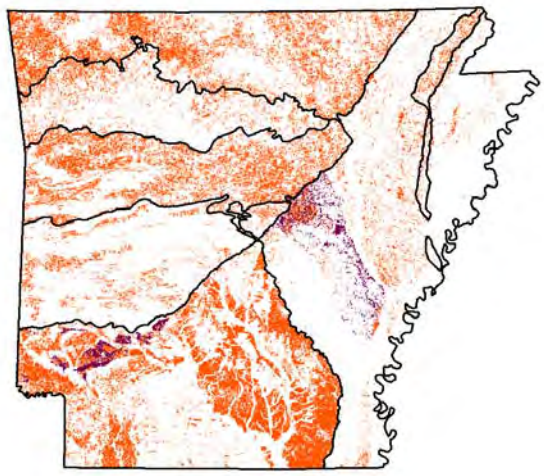
Distribution

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	Optimal
Ozark-Ouachita Prairie and Woodland	Optimal
Pasture Land	Marginal
West Gulf Coastal Plain Calcareous Prairie and Woodland	Optimal
West Gulf Coastal Plain Pine-Hardwood Flatwoods	Marginal

Problems Faced

KNOWN PROBLEM: Loss and degradation of wetland habitats.	Threat: Habitat destruction Source: Agricultural practices
KNOWN PROBLEM: Loss and degradation of wetland habitats.	Threat: Habitat destruction Source: Urban development
KNOWN PROBLEM: Loss of habitat due to conversion to agriculture.	Threat: Habitat destruction or conversion Source: Agricultural practices
KNOWN PROBLEM: Loss of mesic grasslands, succession due to lack of periodic disturbance.	Threat: Habitat destruction or conversion Source: Fire suppression

Data Gaps/Research Needs

Survey grasslands in winter and during migration.

Conservation Actions

	Importance	Category
Acquire important tracts to provide increased block size and connectivity of grassland habitat.	Medium	Land Acquisition
Burn grasslands every 2-4 years.	High	Fire Management
Establish large blocks of grassland habitat.	High	Habitat Restoration/Improvement
Mow or hay every 2-4 years; avoid annual disturbance regimes.	Medium	Habitat Restoration/Improvement
Restore native grasslands.	Medium	Habitat Restoration/Improvement

Monitoring Strategies

Expand efforts to locate and survey potential wintering habitat for this species.

Comments

Like other grassland specialists, populations are probably declining due to a lack of habitat. Its quiet and secretive nature make it difficult to study, especially on its winter range. Grassland habitat can be maintained or enhanced through treatments such as haying, grazing, and burning or combinations thereof, though annual disturbance management should be avoided because it reduces dense litter favored by this species. This species would benefit from farm bill program projects that protect, restore, and manage grasslands. (Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Dechant and others 2003, Lowther 2005, Hamel 1992, James and Neal 1986, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Ammodramus savannarum

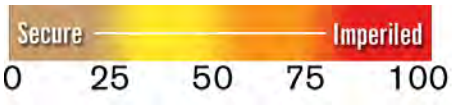
Grasshopper Sparrow

Class: Aves

Order: Passeriformes

Family: Emberizidae

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



Population Trend: Decreasing

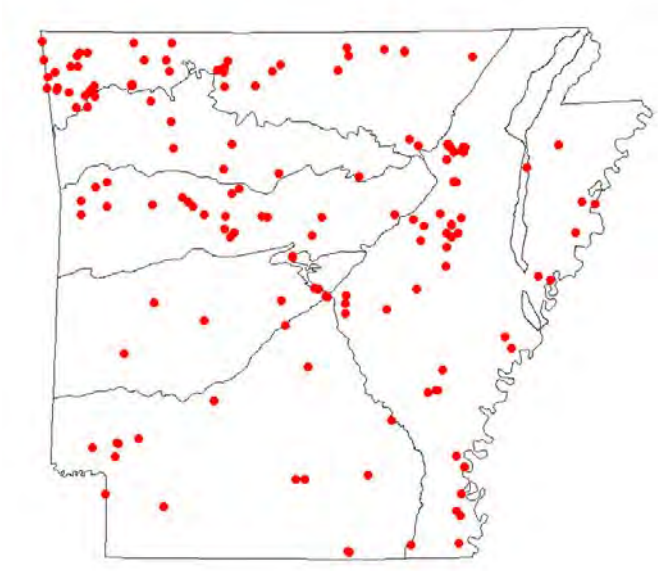
Residence: Breeding

Global Rank: G5 — Secure

State Rank: S3B — Vulnerable breeding species in Arkansas

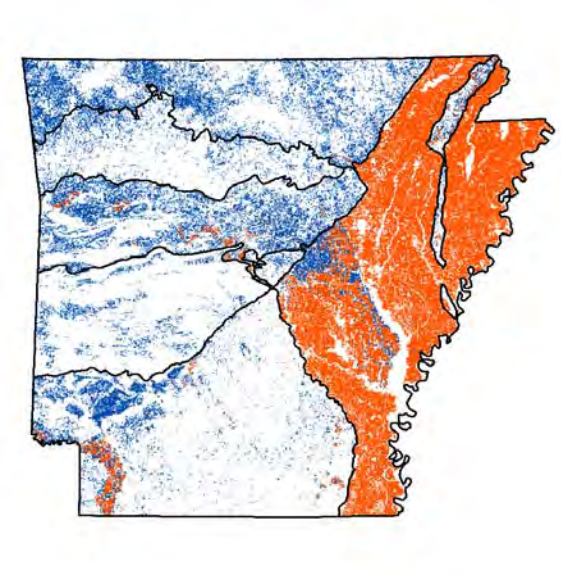
Distribution

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

Habitats	Weight
Crop Land	Marginal
Lower Mississippi Alluvial Plain Grand Prairie	Suitable
Ozark-Ouachita Prairie and Woodland	Optimal
Pasture Land	Suitable
West Gulf Coastal Plain Calcareous Prairie and Woodland	Suitable

Problems Faced

KNOWN PROBLEM: Habitat disturbance and nest failure from earlier and more frequent haying.	Threat: Habitat disturbance Source: Agricultural practices
KNOWN PROBLEM: Habitat disturbance from heavy grazing.	Threat: Habitat disturbance Source: Grazing/Browsing
KNOWN PROBLEM: Habitat loss from conversion of grassland to cropland.	Threat: Habitat destruction or conversion Source: Agricultural practices
KNOWN PROBLEM: Habitat loss from urbanization.	Threat: Habitat destruction or conversion Source: Urban development

Data Gaps/Research Needs

Additional grassland surveys.

Conservation Actions

Conservation Actions	Importance	Category
Acquire important tracts to increase block size and connectivity of grassland habitat.	Medium	Land Acquisition
Conduct prescribed burning.	High	Fire Management
Maintain habitat with light to moderate grazing or haying.	Medium	Habitat Restoration/Improvement
Protect and manage grassland habitat.	High	Habitat Protection
Restoration of 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. Expand efforts to locate and survey potential breeding habitat.

Comments

Grasshopper sparrows favor fairly open grasslands and prairies with bare or open ground for feeding and little shrub cover. Loss of native herbivores has resulted in less favorable habitat in prairie remnants than that which occurred historically. The largest known Arkansas population is on Fort Chaffee next to the Arrowhead Landing Strip, where open soil conditions within tallgrass prairie have been maintained, possibly through a combination of soil type and occasional mechanical disturbance. It also nests in open pasture land across the state that is not overgrazed. Promote farm bill projects that protect, restore, and manage grassland habitats. (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, Vickery 1996)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Anas rubripes

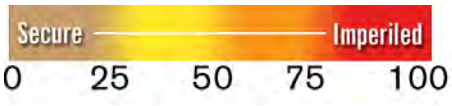
American Black Duck

Class: Aves

Order: Anseriformes

Family: Anatidae

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



Population Trend: Stable

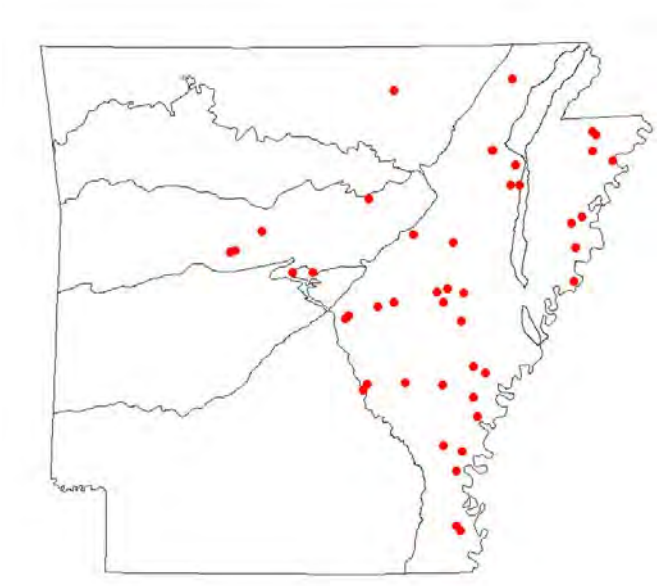
Residence: Winter

Global Rank: G5 — Secure

State Rank: S2N — Imperiled nonbreeding species in Arkansas

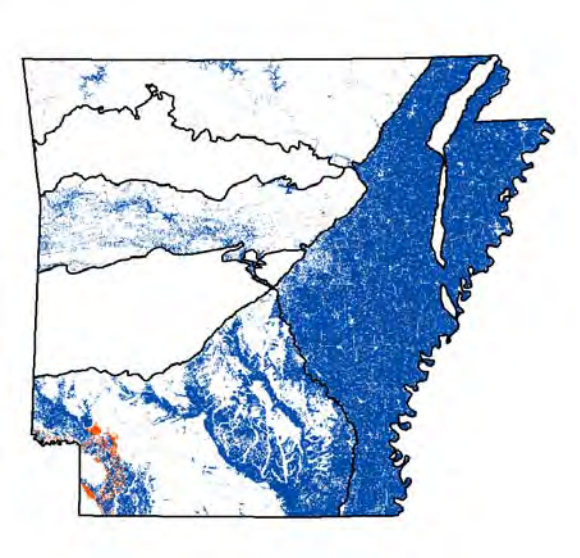
Distribution

Occurrence Records



Ecoregions where the species occurs:

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



Habitat Map

Habitats	Weight
Crop Land	Suitable
Lower Mississippi Alluvial Plain Grand Prairie	Suitable
Lower Mississippi Flatwoods Woodland and Forest	Suitable
Lower Mississippi River Bottomland Depression	Suitable
Lower Mississippi River High Bottomland Forest	Suitable
Lower Mississippi River Low Bottomland Forest	Suitable
Lower Mississippi River Riparian Forest	Suitable
Ponds, Lakes, and Water Holes	Suitable
West Gulf Coastal Plain Large River Floodplain Forest	Suitable
West Gulf Coastal Plain Red River Floodplain Forest	Marginal
West Gulf Coastal Plain Wet Hardwood Flatwoods	Suitable

Anas rubripes
American Black Duck

Problems Faced

KNOWN PROBLEM: Loss and degradation of wetlands and coastal salt marshes on wintering grounds.	Threat: Habitat destruction or conversion Source: Urban development
KNOWN PROBLEM: Loss and degradation of wetlands and coastal salt marshes on wintering grounds.	Threat: Habitat destruction or conversion Source: Municipal/Industrial point source
KNOWN PROBLEM: Loss and degradation of wetlands and coastal salt marshes on wintering grounds.	Threat: Habitat destruction or conversion Source: Recreation
KNOWN PROBLEM: Loss and degradation of wetlands on breeding grounds.	Threat: Habitat destruction or conversion Source: Resource extraction
KNOWN PROBLEM: Loss and degradation of wetlands on breeding grounds.	Threat: Habitat destruction or conversion Source: Commercial/industrial development
KNOWN PROBLEM: Loss and degradation of wetlands on breeding grounds.	Threat: Habitat destruction or conversion Source: Forestry activities
KNOWN PROBLEM: Loss and degradation of wetlands on breeding grounds.	Threat: Habitat destruction or conversion Source: Agricultural practices
POTENTIAL PROBLEM: Hybridization with mallards. Mallards have expanded in range and abundance.	Threat: Biological alteration Source: Interspecific competiton

Data Gaps/Research Needs

No data gaps or research needs were identified at the state level.

Conservation Actions

	Importance	Category
Protect wetlands.	High	Habitat Protection
Restore and/or enhance wetlands.	High	Habitat Restoration/Improvement

Monitoring Strategies

Record occasional observations during mid-winter waterfowl surveys and periodic aerial waterfowl surveys.

Comments

The American Black Duck was once the most abundant dabbling duck species in eastern North America but populations experienced a drastic decline (>50%) between the 1950s and 1990s. Winter inventories continue to indicate a stable or slightly declining population while breeding population estimates from 1990-2010 suggest a stable population. In contrast, demographic data suggest declining productivity between 1997 and 2007 (Devers and Collins 2011). Harvest restrictions were implemented in 1983 and 1984 in the U.S. and Canada, respectively, and harvest rates decreased (Francis et al. 1998). However, these data do not indicate that harvest was the only or primary cause of the black duck decline (Rusch et al. 1989). Currently, harvest is managed according to the Black Duck Adaptive Harvest Management framework, the goals of which are to: 1) maintain a black duck population that meets legal mandates and provides consumptive and non-consumptive use commensurate with habitat carrying capacity; 2) maintain societal values associated with the hunting tradition; and, 3) maintain equitable access to the black duck resources between and within the U.S. and Canada (USFWS 2014). American Black Ducks and Mallards are very similar genetically and ecologically thus setting the stage for competition, and field and laboratory studies provide circumstantial evidence of competition (Conroy et al. 2002). However, it is unclear if the increase in Mallards is the ultimate or proximate cause of the black duck decline or simply a concurrent event (Devers and Collins 2011). While research and monitoring projects to address key information needs are ongoing, habitat conservation efforts are focused on protection, restoration and enhancement of key lands on the breeding grounds, migration routes and wintering grounds (Devers and Collins 2011).

Taxa Association Team and Peer Reviewers

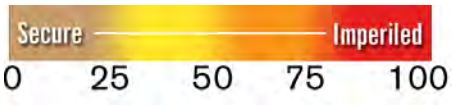
AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Anhinga anhinga

Anhinga

Class: Aves
Order: Pelecaniformes
Family: Anhingidae

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



Population Trend: Stable

Residence: Breeding

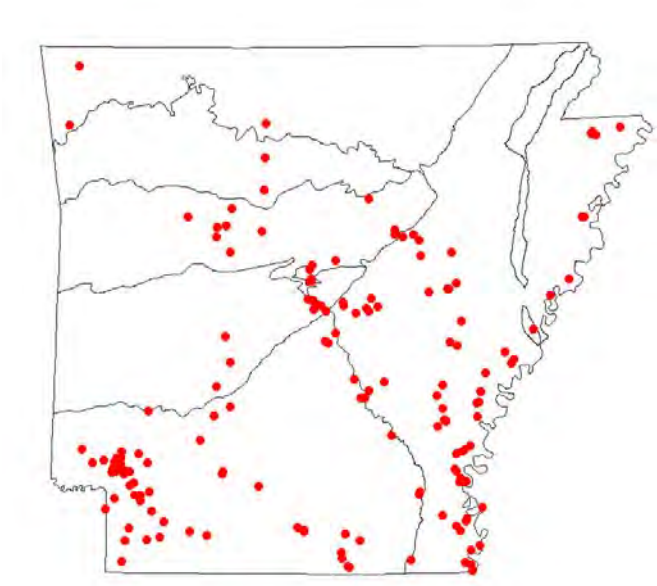
Global Rank: G5 — Secure

State Rank: S2 — Imperiled in Arkansas

©U.S. Fish and Wildlife Service

Distribution

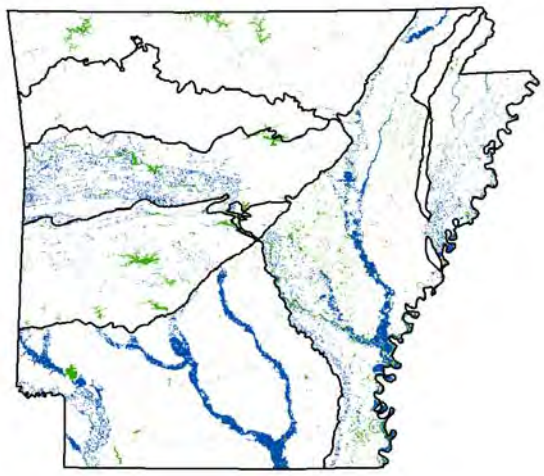
Occurrence Records



Ecoregions where the species occurs:

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

Habitat Map



Habitats

	Weight
Lower Mississippi River Riparian Forest	Suitable
Ozark-Ouachita Large Floodplain	Suitable
Ponds, Lakes, and Water Holes	Obligate
West Gulf Coastal Plain Large River Floodplain Forest	Suitable
West Gulf Coastal Plain Red River Floodplain Forest	Suitable

Problems Faced

KNOWN PROBLEM: Loss of wetlands due to agriculture.	Threat: Habitat destruction Source: Agricultural practices
KNOWN PROBLEM: Loss of wetlands from hydrological alteration.	Threat: Hydrological alteration Source: Water diversion
POTENTIAL PROBLEM: Accidental shooting as a result of coromorant control.	Threat: Resource depletion Source: Confined animal operations
POTENTIAL PROBLEM: Poor water quality, contaminants.	Threat: Toxins/contaminants Source: Agricultural practices

Data Gaps/Research Needs

Determine survivorship.

Conservation Actions

	Importance	Category
Maintain or restore bottomland hardwood swamps with older growth tress adajcent to sloughs, rivers, bayous, and reservoir.	High	Habitat Restoration/Improvement

Anhinga anhinga
Anhinga

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 monitoring of this species by the Arkansas Natural Heritage Commission.

Comments

This species spends most of its life in or on the branches of tall trees, over slow moving rivers, sloughs, bayous and lakes and reservoirs. Even though it is highly aquatic, its feathers are not waterproof like most waterfowl feathers. Thus they need to spend a lot of time drying and warming in the sun, with their wings and tail spread. Their turkey-like tail spread gives them the nickname "Water Turkey". Their need to bask in the sun limits their range northward. They nest in colonies, often among herons and egrets. Young anhingas can swim before they can fly. They are sensitive to the presence of humans while nesting. Loss of wetlands through drainage and agricultural development has led to their decline in the state. (Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Frederick and Siegel-Causey 2000, 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)

Taxa Association Team and Peer Reviewers

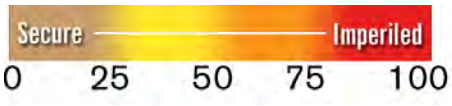
AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Anthus spragueii

Sprague's Pipit

Class: Aves
Order: Passeriformes
Family: Motacillidae

Priority Score: **33** **out of 100**



Population Trend: Decreasing

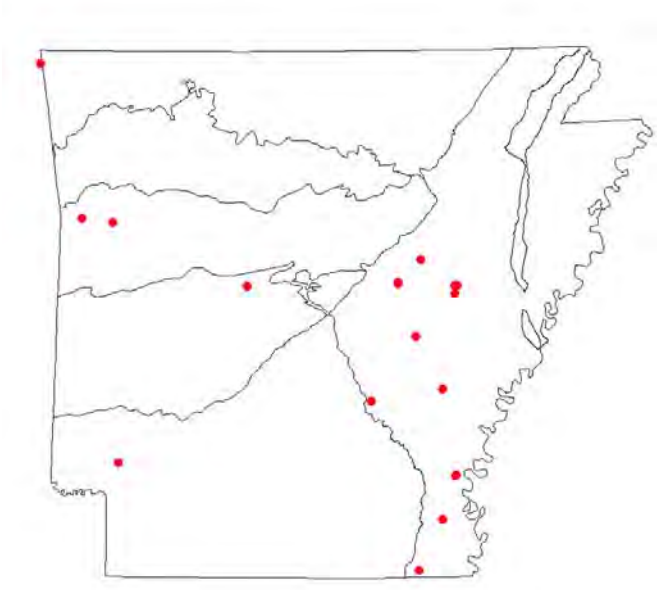
Residence: Winter

Global Rank: G4 — Apparently secure species

State Rank: S1N — Critically imperiled nonbreeding species in Arkansas

Distribution

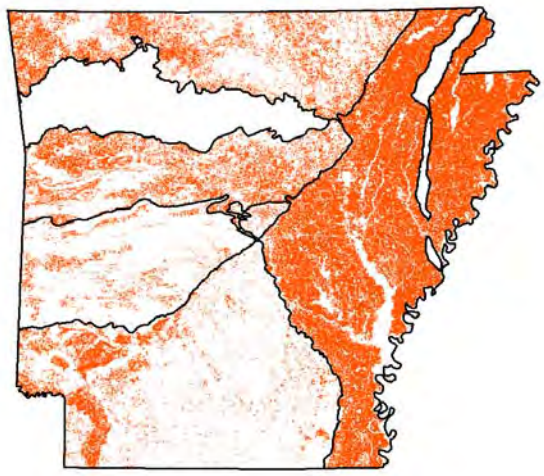
Occurrence Records



Ecoregions where the species occurs:

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

Habitat Map



Habitats	Weight
Crop Land	Marginal
Lower Mississippi Alluvial Plain Grand Prairie	Marginal
Ozark-Ouachita Prairie and Woodland	Marginal
Pasture Land	Marginal
West Gulf Coastal Plain Calcareous Prairie and Woodland	Marginal

Problems Faced

KNOWN PROBLEM: Loss of grassland habitat.	Threat: Habitat destruction Source: Agricultural practices
KNOWN PROBLEM: Loss of grassland habitat.	Threat: Habitat destruction Source: Urban development
KNOWN PROBLEM: Loss of grassland habitat.	Threat: Alteration of natural fire regimes Source: Fire suppression
KNOWN PROBLEM: Loss of large herbivores.	Threat: Biological alteration Source: Management of/for certain species

Data Gaps/Research Needs

Determine best management practices.
Determine range of habitat associations.
Determine statewide distribution and abundance.

Conservation Actions

	Importance	Category
	Medium	
Conduct prescribed burning in grassland habitats.	High	Fire Management
Maintain habitat with light to moderate grazing or haying.	High	Habitat Restoration/Improvement
Restore native grasslands.	High	Habitat Restoration/Improvement

Monitoring Strategies

Continue to track this species using the Christmas Bird Count. Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

Arkansas appears to be on the eastern periphery of the Sprague's Pipits wintering range. The species is a candidate for listing as Endangered or Threatened under the Endangered Species Act of 1973; the U.S. Fish and Wildlife Service is scheduled to make a decision on listing by the end of September 2015. Its conservation status includes Species of Special Concern/Watch List Species by Partner's in Flight and National Audubon Society. Range wide it winters in grasslands lacking shrubs. It winters in the adjacent state of Texas in heavily grazed grasslands dominated by little bluestem (Schizachyrium scoparium) and Andropogon spp, and in large, over-grazed pastures. Its winter habitat associations in Arkansas have not been quantified and are poorly understood, though they are reliably found in small numbers at the Stuttgart Airport in habitat dominated by old-field threeawn (Aristida oligantha) and have been observed in similar habitat at H.E. Flanagan Prairie Natural Area (Holimon, personal observation). Habitat descriptions from other observed locations in Arkansas are not known but in general consist of very open areas with short grass and few shrubs. (Arkansas Audubon Society 2012, Butcher and others 2007, Davis and others 2014, Hunter and others 2004, Grzybowski 1982, Jones 2010, Rich and others. 2004)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Antrostomus vociferus

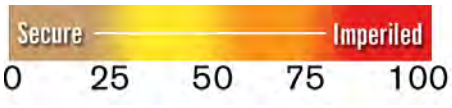
Eastern Whip-poor-will

Class: Aves

Order: Caprimulgiformes

Family: Caprimulgidae

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



Population Trend: Decreasing

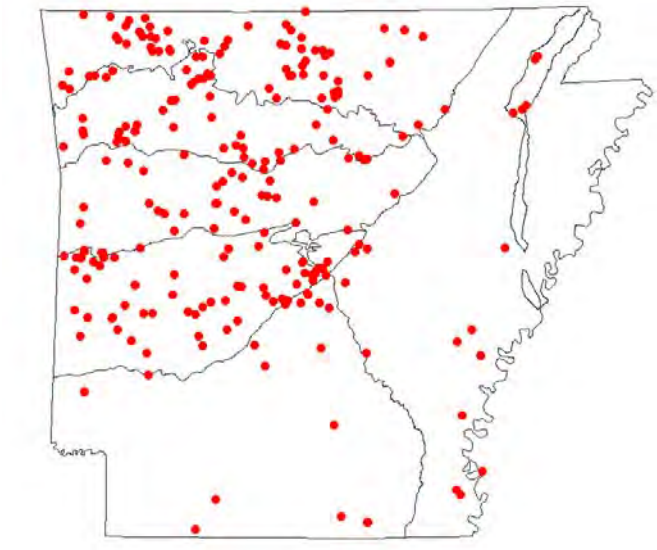
Residence: Breeding

Global Rank: G5 — Secure

State Rank: S3B — Vulnerable breeding species in Arkansas

Distribution

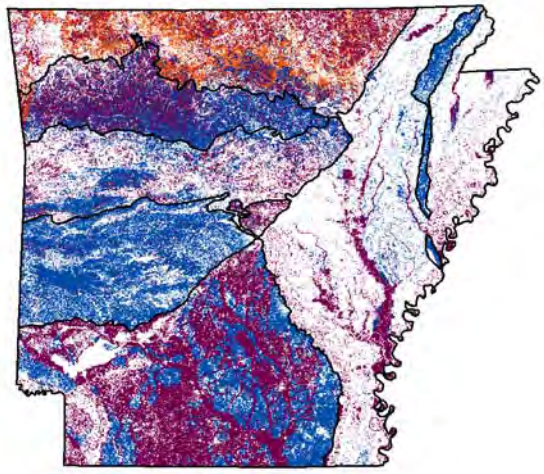
Occurrence Records



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



Antrostomus vociferus
Eastern Whip-poor-will

Habitats	Weight
Crowley's Ridge Loess Slope Forest	Suitable
Cultivated Forest	Suitable
Interior Highlands Calcareous Glade and Barrens	Marginal
Interior Highlands Dry Acidic Glade and Barrens	Marginal
Lower Mississippi Flatwoods Woodland and Forest	Suitable
Lower Mississippi River High Bottomland Forest	Suitable
Lower Mississippi River Low Bottomland Forest	Optimal
Lower Mississippi River Riparian Forest	Optimal
Ouachita Montane Oak Forest	Optimal
Ozark-Ouachita Dry Oak and Pine Woodland	Optimal
Ozark-Ouachita Dry-Mesic Oak Forest	Optimal
Ozark-Ouachita Dry-Mesic Oak Forest/Woodland	Optimal
Ozark-Ouachita Large Floodplain	Optimal
Ozark-Ouachita Mesic Hardwood Forest	Optimal
Ozark-Ouachita Pine-Bluestem Woodland	Suitable
Ozark-Ouachita Pine-Oak Forest/Woodland	Optimal
Ozark-Ouachita Prairie and Woodland	Suitable
Ozark-Ouachita Riparian	Suitable
West Gulf Coastal Plain Large River Floodplain Forest	Optimal
West Gulf Coastal Plain Pine-Hardwood Flatwoods	Suitable
West Gulf Coastal Plain Pine-Hardwood Forest/Woodland	Suitable
West Gulf Coastal Plain Red River Floodplain Forest	Optimal
West Gulf Coastal Plain Sandhill Oak and Shortleaf Pine Forest/Woodland	Suitable
West Gulf Coastal Plain Small Stream/River Forest	Optimal
West Gulf Coastal Plain Wet Hardwood Flatwoods	Optimal

Problems Faced

KNOWN PROBLEM: Loss of forest openings.	Threat: Altered composition/structure Source: Forestry activities
KNOWN PROBLEM: Loss of nesting habitat.	Threat: Habitat destruction or conversion Source: Agricultural practices
KNOWN PROBLEM: Loss of nesting habitat.	Threat: Habitat destruction or conversion Source: Urban development
KNOWN PROBLEM: Predation.	Threat: Extraordinary predation/parasitism/disease Source: Predation
POTENTIAL PROBLEM: Collisions with vehicles and man-made structures.	Threat: Collision with man-made structures Source: Urban development
POTENTIAL PROBLEM: Nest predation by feral hogs.	Threat: Extraordinary predation/parasitism/disease Source: Exotic species
POTENTIAL PROBLEM: Toxins, heavy metals, and pesticides negatively affect the species.	Threat: Toxins/contaminants Source: Municipal/Industrial point source
POTENTIAL PROBLEM: Toxins, heavy metals, and pesticides negatively affect the species.	Threat: Toxins/contaminants Source: Non-point source pollution

Data Gaps/Research Needs

Collect information on habitat selection and potential limiting factors on the breeding grounds.
Determine impacts of human activity.
Estimate population size and status.
Investigate interspecies competition between Chuck-will's-widows and Whip-poor-wills with and emphasis on the recent range expansion of Chuck-wills-widows.

Conservation Actions

	Importance	Category
More data are needed to determine conservation actions.	Medium	Data Gap

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. This species may require implementation of night roadside counts to collect data on distribution and population trends specific to Arkansas. This effort should be coordinated with states doing similar monitoring. Nightjar Surveys in Arkansas should be expanded along current BBS routes with an emphasis on routes in the Ozark Highlands and norhtern portion of Crowley's Ridge.

Comments

This species is secretive, often heard but rarely seen. It feeds primarily on the wing, mostly at dawn and dusk. It is a ground nester which prefers nesting in open woods with little or no underbrush. These habitat patches are often found near suburbs and agricultural fields. However, habitat loss through succession or increased urbanization and agricultural development could be a problem. Common in the Ozark-St. Francis NF, Uncommon to locally common in the Ouachita NF (ANHC 2003, Bent 1989, Cink 2002, Duzan and others 2003, 2003A, Evans and Kirkman 1980, Fitzgerald 2000, Hamel 1992, Jacobs 2001, James and Neal 1986, Martin and Finch 1995, Robbins and Easterla 1992).

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Arenaria interpres

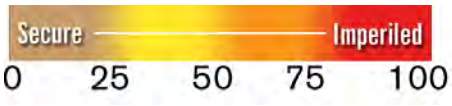
Ruddy Turnstone

Class: Aves

Order: Charadriiformes

Family: Scolopacidae

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



Population Trend: Decreasing

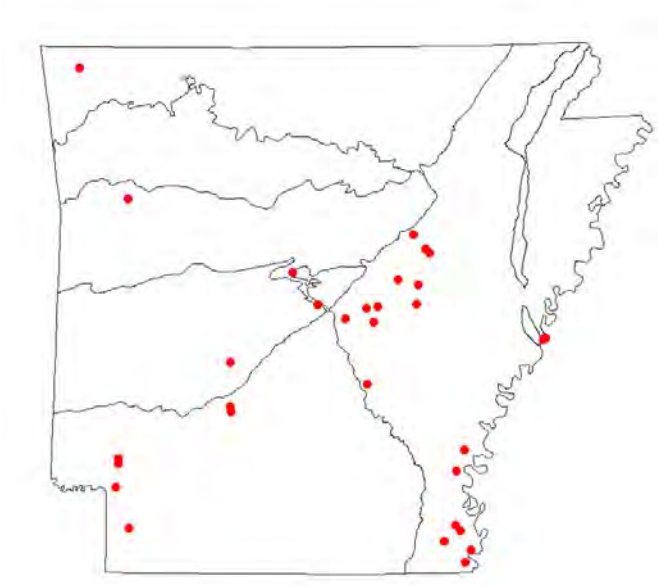
Residence: Transient

Global Rank: G5 — Secure

State Rank: S2N — Imperiled nonbreeding species in Arkansas

Distribution

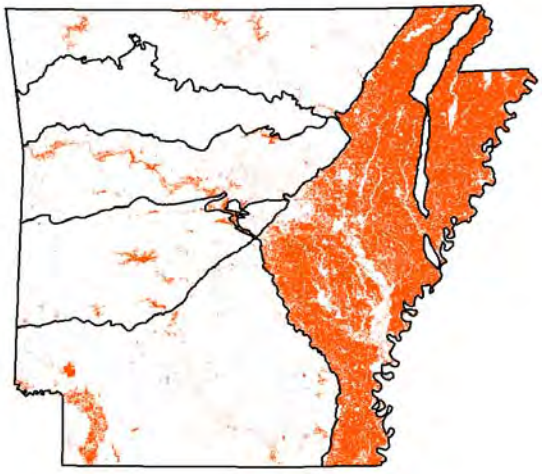
Occurrence Records



Ecoregions where the species occurs:

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

Habitat Map



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

Problems Faced

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

Data Gaps/Research Needs

Determine habitat use during migration.

Conservation Actions	Importance	Category
Draw-down fish ponds to create mud flat habitat in July - November.	High	Habitat Restoration/Improvement
Flood crop land 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 migration and, if possible, during July - November migration.	Medium	Habitat Restoration/Improvement
Manipulate reservoirs (private and publicly owned) to provide mudflat habitat during July - Nov. migration, and, if possible, during March-early June migration.	Medium	Habitat Restoration/Improvement
Restore mud flats.	High	Habitat Restoration/Improvement

Arenaria interpres
Ruddy Turnstone

Monitoring Strategies

Initiate 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, but this species is seen in the state very infrequently. They tend to forage on exposed mudflats, sandbars and rock dikes along rivers. Studies suggest that populations of this and other shorebird species are declining. The availability of habitat and food along their migratory route is critical. Birds need to stop and refuel as they go. Proper management of water levels on wetlands, artificial impoundments, and flooded agricultural fields can help. (Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, James and Neal 1986, Klima and Jehl 1998, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004).

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 mudflat habitat. Deeper water that is drawn down slowly typically provides more invertebrates than very recently flooded water.

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Botaurus lentiginosus

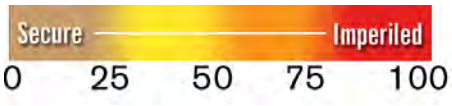
American Bittern

Class: Aves

Order: Ciconiiformes

Family: Ardeidae

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



Population Trend: Stable

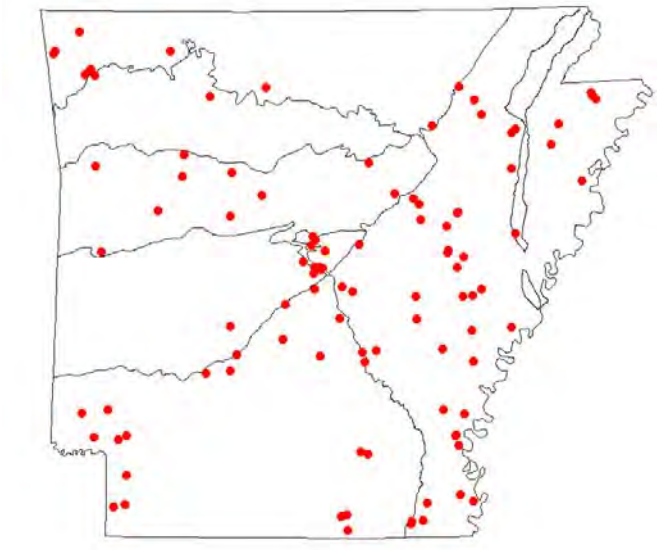
Residence: Permanent

Global Rank: G4 — Apparently secure species

State Rank: S2N — Imperiled nonbreeding species in Arkansas

Distribution

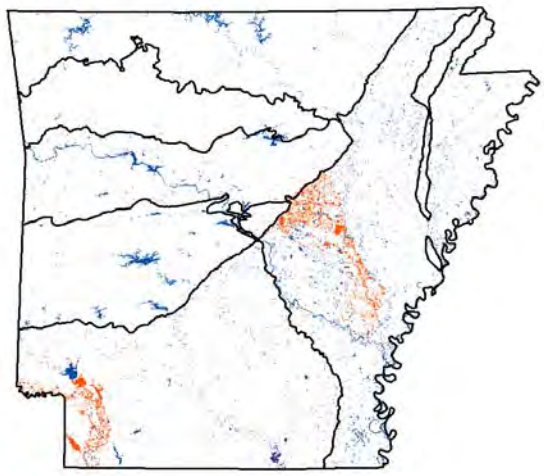
Occurrence Records



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
Herbaceous Wetland	Optimal
Lower Mississippi Alluvial Plain Grand Prairie	Marginal
Ozark-Ouachita Prairie and Woodland	Marginal
Ponds, Lakes, and Water Holes	Suitable
West Gulf Coastal Plain Red River Floodplain Forest	Marginal

Problems Faced

KNOWN PROBLEM: Highly vulnerable to contaminants and pollutants.	Threat: Toxins/contaminants Source: Agricultural practices
KNOWN PROBLEM: Lack of emergent marsh, lack of wetlands.	Threat: Habitat destruction or conversion Source: Agricultural practices
KNOWN PROBLEM: Lack of emergent marsh, lack of wetlands.	Threat: Hydrological alteration Source: Water diversion
KNOWN PROBLEM: Lack of emergent marsh, lack of wetlands.	Threat: Habitat destruction or conversion Source: Forestry activities

Data Gaps/Research Needs

No data gaps or research needs were identified.

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

Monitoring Strategies

Participate in National Marshbird Monitoring Program coordinated by Waterbird Conservation for the Americas Bird Initiative.

Comments

Although little is known about this secretive species' natural history, its dependence on freshwater wetlands with tall, dense emergent vegetation is clear, as is its population decline associated with the decline in wetland habitat. Chemical contamination of their food supply may also be a factor in the decline. Although difficult to spot, its distinctive, loud, booming call can be heard from a long way off, and gives rise to nicknames like thunder-pumper. (Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Gibbs and others 1992A, 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)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Calcarius pictus

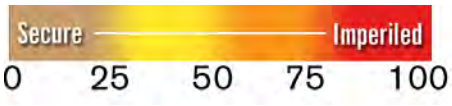
Smith's Longspur

Class: Aves

Order: Passeriformes

Family: Emberizidae

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



Population Trend: Decreasing

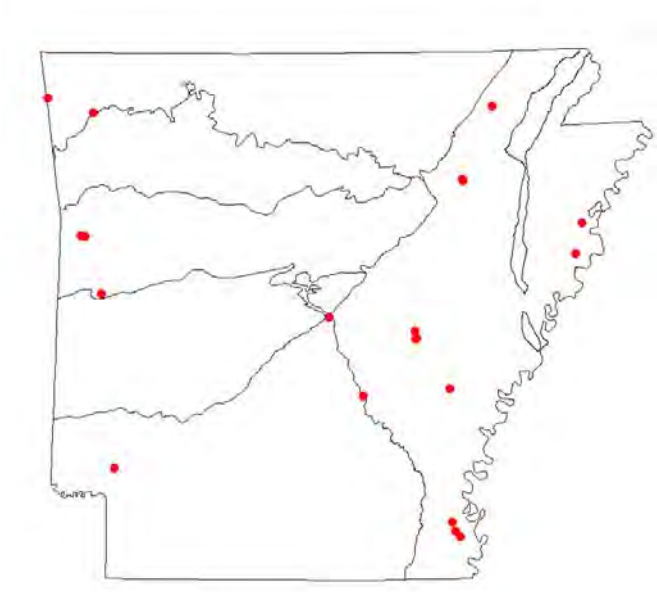
Residence: Winter

Global Rank: G5 — Secure

State Rank: S2N — Imperiled nonbreeding species in Arkansas

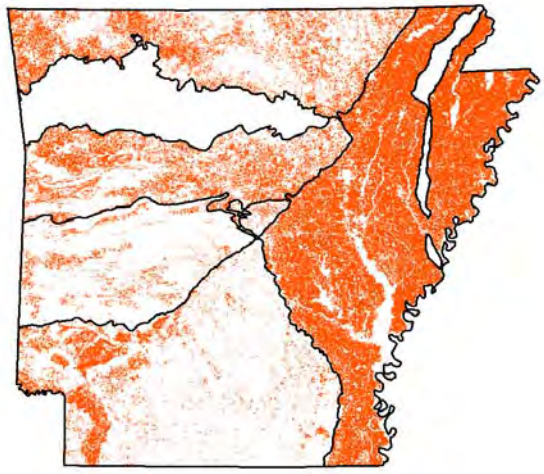
Distribution

Occurrence Records



Ecoregions where the species occurs:

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



Habitat Map

Habitats	Weight
Crop Land	Marginal
Lower Mississippi Alluvial Plain Grand Prairie	Marginal
Ozark-Ouachita Prairie and Woodland	Marginal
Pasture Land	Marginal
West Gulf Coastal Plain Calcareous Prairie and Woodland	Marginal

Problems Faced

KNOWN PROBLEM: Loss of grassland habitat containing three-awn grass (Aristida spp.).	Threat: Habitat destruction Source: Agricultural practices
KNOWN PROBLEM: Loss of large herbivores.	Threat: Biological alteration Source: Management of/for certain species
POTENTIAL PROBLEM: Replacement of three-awn grass (Aristida spp.) with bermuda at airports.	Threat: Habitat destruction or conversion Source: Exotic species

Data Gaps/Research Needs

Determine population trends.
Further investigation of statewide distribution and abundance.
Investigate if there are alternative habitats to those dominated by three-awn grass (Aristida spp.).

Conservation Actions

	Importance	Category
Enocurage use of three-awn grass (Aristida spp.) along airport runways.	High	Habitat Restoration/Improvement
Stop mowing before end of growing season, providing cover, forage, and three-awn grass (an annual) seeds.	High	Habitat Restoration/Improvement

Monitoring Strategies

Continue efforts to locate and survey potential wintering habitat for this species.
Monitor known winter locations for abundance and presence of preferred habitat containing three-awn grass.

Comments

Smith's longspurs occur only in winter Arkansas, primarily along airport runways where prior soil disturbance favored the establishment of large stands of three-awn grass (Aristida spp). The number of known airport locations in the state supporting this bird has declined, likely due in part to this early successional grassland habitat type succeeding to a later seral grassland stage having different composition and structure. Without repeated disturbance favoring three-awn grass, succession to other grassland habitats resulting in loss of habitat suitable for wintering Smith's Longspurs is inevitable. In addition, airport managers now commonly replant disturbed areas associated with airport construction with non-native species such as Bermuda grass. Further, many airport managers have replaced three-awn grass and other native species with Bermuda grass for aesthetic purposes. Bermuda grass is not an important component of their winter habitat and deters their presence when it is dominant, perhaps because of deeper thatch. (Arkansas Audubon Society 2012, Briskie 2009, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Grzybowski 1980, Hamel 1992, James and Neal 1986, Holimon 2012, Martin and Finch 1995, Monroe 2010, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Calidris alba

Sanderling

Class: Aves
Order: Charadriiformes
Family: Scolopacidae

Priority Score: 19 **out of 100**

Population Trend: Decreasing

Residence: Transient

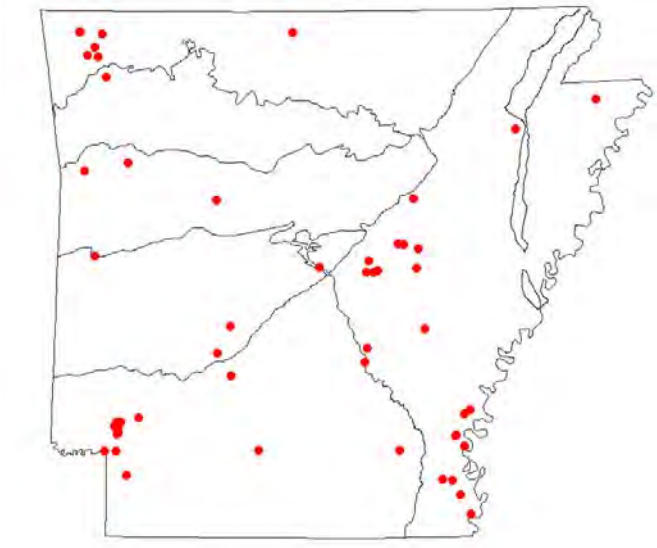

©Jeff R. Wilson

Global Rank: G5 — Secure

State Rank: S3N — Vulnerable nonbreeding species in Arkansas

Distribution

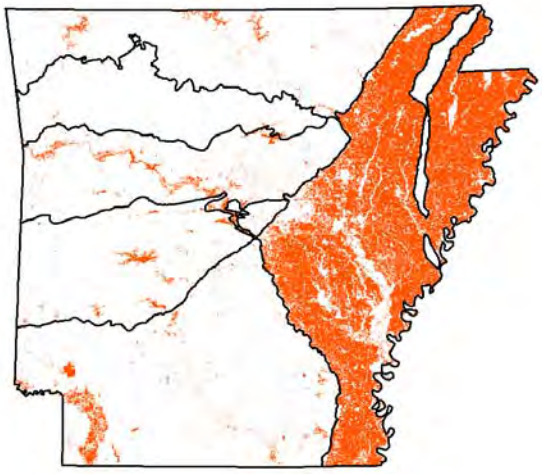
Occurrence Records



Ecoregions where the species occurs:

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

Habitat Map



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

Problems Faced

KNOWN PROBLEM: Lack of mud flats during migration as a result of hydrological alteration.	Threat: Hydrological alteration Source: Water diversion
KNOWN PROBLEM: Lack of mud flats during migration as a result of hydrological alteration.	Threat: Hydrological alteration Source: Agricultural practices

Data Gaps/Research Needs

No data gaps or research needs were identified.

Conservation Actions	Importance	Category
Provide mud flat habitat by flooding harvested cropland in summer and early fall.	High	Habitat Restoration/Improvement
Provide mud flat habitat by manipulation moist-soil units during March to early June and, where possible, during July - November.	Medium	Habitat Restoration/Improvement
Provide mudflat habitat by drawing down fish ponds in July - November.	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.

Calidris alba
Sanderling

Comments

This species is seen in the state April-October, but this species is seen in the state very infrequently. They tend to forage on exposed mud flats, sandbars and rock dikes along rivers. Studies suggest that populations of this and other shorebird species are declining. The availability of habitat and food along their migratory route is critical. Birds need to stop and refuel as they go. Proper management of water levels on wetlands, artificial impoundments, and flooded agricultural fields can help. (Arkansas Audubon Society 2012 (Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, James and Neal 1986, MacWhirter and others 2002, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004, U.S. Shorebird Conservation Plan 2004)

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 mudflat habitat. Deeper water that is drawn down slowly typically provides more invertebrates than very recently flooded water.

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Calidris alpina

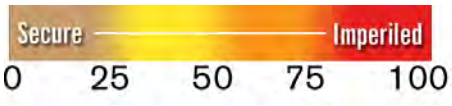
Dunlin

Class: Aves

Order: Charadriiformes

Family: Scolopacidae

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



Population Trend: Decreasing

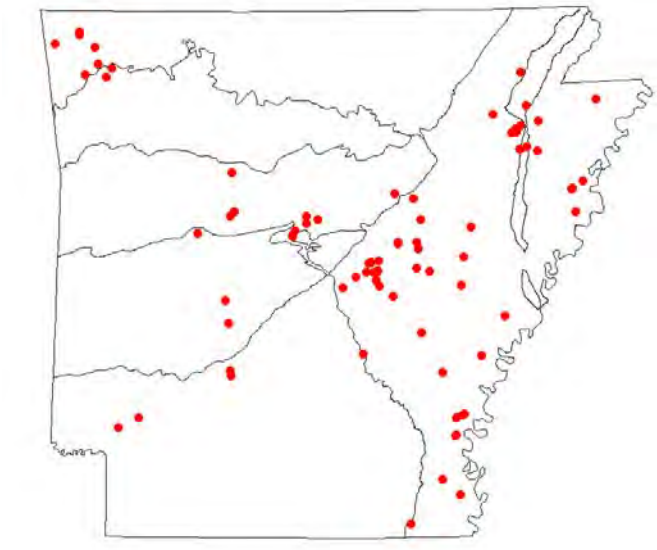
Residence: Transient

Global Rank: G5 — Secure

State Rank: S3N — Vulnerable nonbreeding species in Arkansas

Distribution

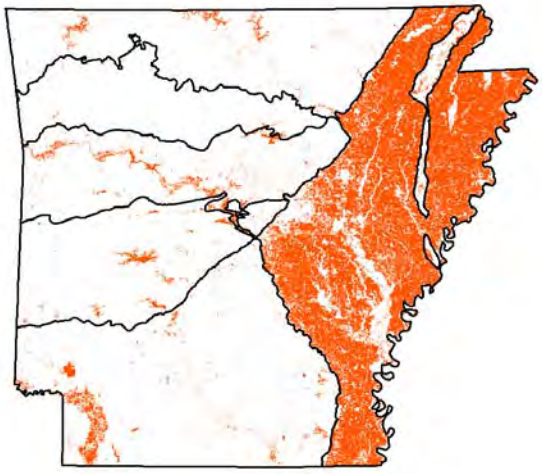
Occurrence Records



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	Marginal
Mud Flats	Optimal
Ponds, Lakes, and Water Holes	Marginal

Problems Faced

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

Data Gaps/Research Needs

A reliable assessmnet of population status and trends is needed.

Conservation Actions	Importance	Category
Provide mud flat habitat by drawing down fish ponds in July - November.	High	Habitat Restoration/Improvement
Provide mud flat habitat by flooding harvested cropland in summer and early fall.	High	Habitat Restoration/Improvement
Provide mud flat habitat by manipulating moist-soil units during March to early June and, where possible, during July - November.	Medium	Habitat Restoration/Improvement

Calidris alpina
Dunlin

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 has been seen in the state every month, but is most common during the spring migration period March-June and the fall migration period October-December. They are often seen in association with other sandpipers. Studies suggest that populations of this and other shorebird species are declining. The availability of habitat and food along their migratory route is critical. Birds need to stop and refuel as they go. Proper management of water levels on wetlands, artificial impoundments, and flooded agricultural fields can help. (Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, James and Neal 1986, Klima and Jehl 1998, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004).

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 mudflat habitat. Deeper water that is drawn down slowly typically provides more invertebrates than very recently flooded water.

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Calidris himantopus

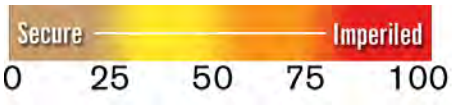
Stilt Sandpiper

Class: Aves

Order: Charadriiformes

Family: Scolopacidae

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



Population Trend: Decreasing

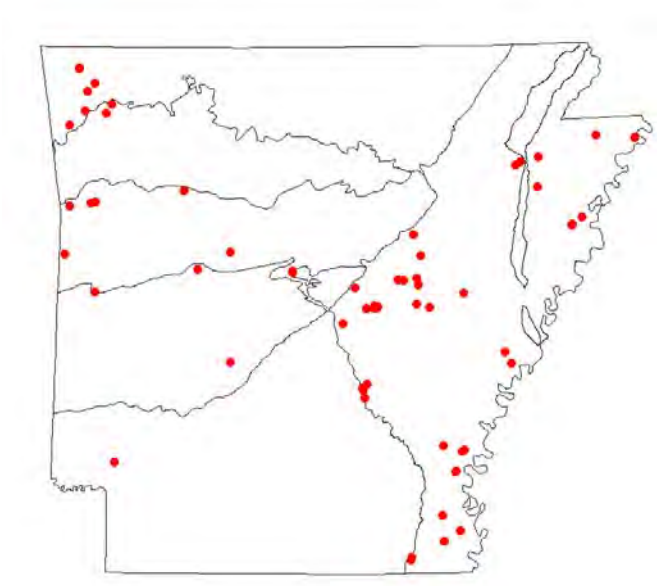
Residence: Transient

Global Rank: G5 — Secure

State Rank: S3N — Vulnerable nonbreeding species in Arkansas

Distribution

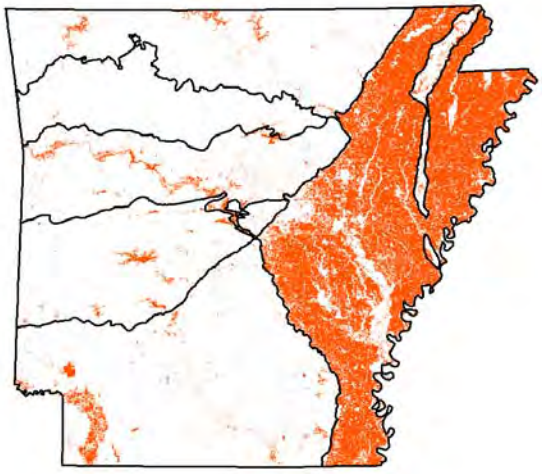
Occurrence Records



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	Marginal
Mud Flats	Optimal
Ponds, Lakes, and Water Holes	Marginal

Problems Faced

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

Data Gaps/Research Needs

No data gaps or research needs were identified.

Conservation Actions	Importance	Category
Provide mud flat habitat by drawing down fish ponds in July - November.	High	Habitat Restoration/Improvement
Provide mud flat habitat by flooding harvested cropland in summer and early fall.	High	Habitat Restoration/Improvement
Provide mud flat habitat by manipulating moist soil units during March to early June and, where possible, during July to November.	Medium	Habitat Restoration/Improvement
Provide mud flat habitat by manipulating reservoirs (both private and public) during July through November migration, and where possible, during March to early June migration.	Medium	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 March-November, with March- June sightings believed to be spring northward migrants, while birds seen July through November are believed to be southbound migrants. They are often seen in association with Long-billed Dowitchers and tend to forage in very shallow water rather than exposed mud. Studies suggest that populations of this and other shorebird species are declining. The availability of habitat and food along their migratory route is critical. Birds need to stop and refuel as they go. Proper management of water levels on wetlands, artificial impoundments, and flooded agricultural fields can help. (Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, James and Neal 1986, Klima and Jehl 1998, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004)

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 mudflat habitat. Deeper water that is drawn down slowly typically provides more invertebrates than very recently flooded water.

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Calidris subruficollis

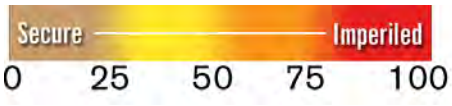
Buff-breasted Sandpiper

Class: Aves

Order: Charadriiformes

Family: Scolopacidae

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



Population Trend: Decreasing

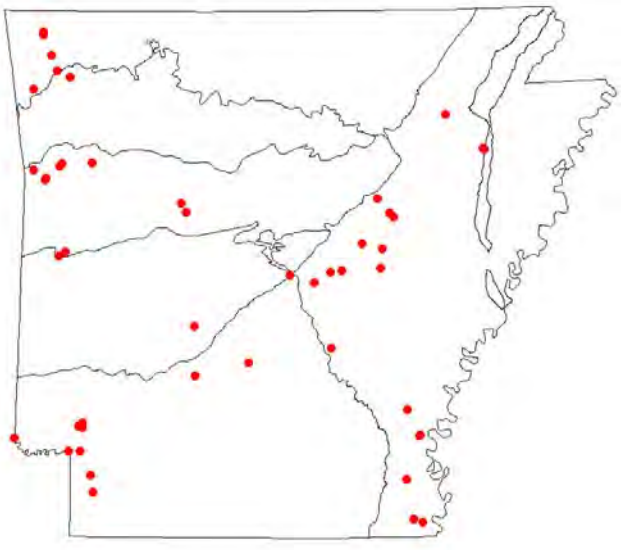
Residence: Transient

Global Rank: G4 — Apparently secure species

State Rank: S2N — Imperiled nonbreeding species in Arkansas

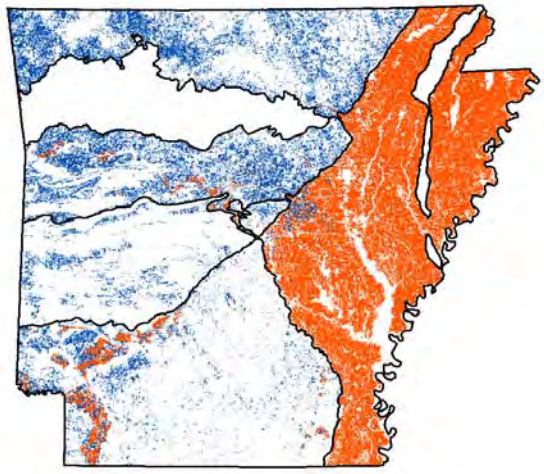
Distribution

Occurrence Records



Ecoregions where the species occurs:

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



Habitat Map

Habitats	Weight
Crop Land	Marginal
Lower Mississippi Alluvial Plain Grand Prairie	Marginal
Mud Flats	Suitable
Ozark-Ouachita Prairie and Woodland	Marginal
Pasture Land	Suitable
West Gulf Coastal Plain Calcareous Prairie and Woodland	Marginal

Problems Faced

KNOWN PROBLEMS: Lack of open areas containing short grass.	Threat: Altered composition/structure Source: Grazing/Browsing
KNOWN PROBLEMS: Lack of open areas containing short grass.	Threat: Altered composition/structure Source: Fire suppression
KNOWN PROBLEMS: Lack of open areas containing short grass.	Threat: Altered composition/structure Source: Agricultural practices
KNOWN PROBLEMS: Lack of open areas containing short grass.	Threat: Altered composition/structure Source: Urban development

Data Gaps/Research Needs

Determine impacts of pesticides applied to golf courses and sod farms on prey availability and bird reproductive health.

Conservation Actions

	Importance	Category
Protect grasslands, short grass wetlands, and associated mud flats utilized during migration.	High	Habitat Protection
Restore grasslands and associated grassy mud flats utilized during migration.	High	Habitat Restoration/Improvement

Monitoring Strategies

Initiate fall migration counts in the Mississippi Alluvial Valley and the West Gulf Coastal Plain, coordinated through Lower Mississippi Valley Joint Venture. Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

The only North American shorebird to have a lek mating system like grouse Listed as highly imperiled by the U.S. Shorebird Conservation Plan. Considered near threatened on the IUCN Red List; on the Yellow list of Watch List 2014. Specific management attention is needed for this shorebird. During migration, inhabits relatively dry, short-grass sites such as pastures, golf courses, and airports; also mudflats and rice fields. In Arkansas, rare spring migrant and uncommon fall migrant; highest numbers have been seen on sod farms. (Arkansas Audubon Society 2014, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, James and Neal 1986, Lanctot and Laredo1994, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004, U.S. Shorebird Conservation Plan 2004, Rosenberg and others 2014, U.S. Shorebird Conservation Plan Partnership. 2015)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Chaetura pelagica

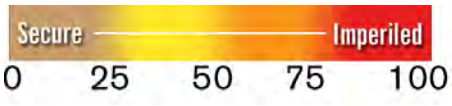
Chimney Swift

Class: Aves

Order: Apodiformes

Family: Apodidae

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



Population Trend: Decreasing

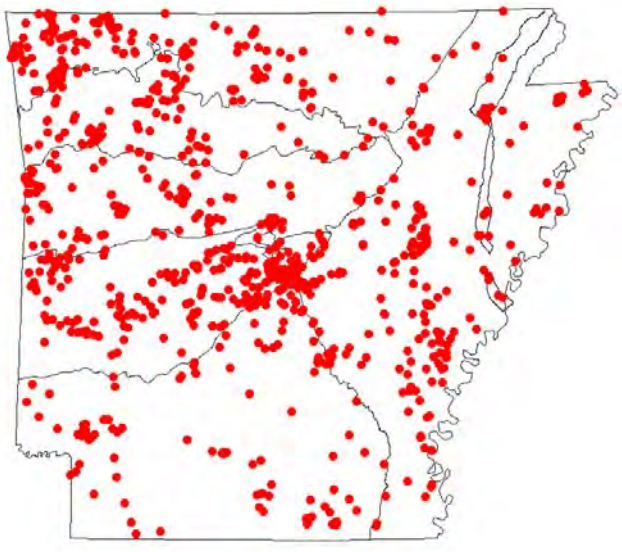
Residence: Breeding

Global Rank: G5 — Secure

State Rank: S3B — Vulnerable breeding species in Arkansas

Distribution

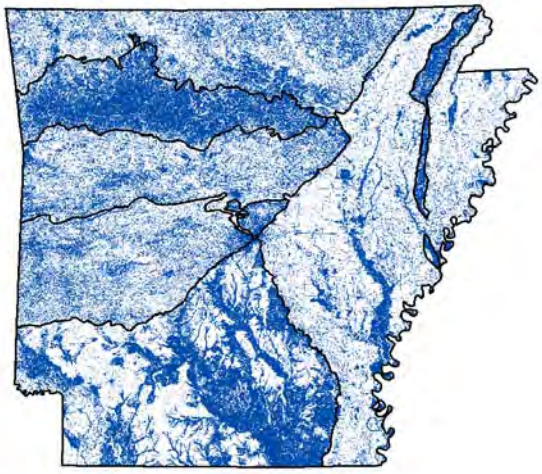
Occurrence Records



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



Chaetura pelagica
Chimney Swift

Habitats	Weight
Crowley's Ridge Loess Slope Forest	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
Lower Mississippi River Riparian Forest	Suitable
Ozark-Ouachita Dry-Mesic Oak Forest	Suitable
Ozark-Ouachita Large Floodplain	Suitable
Ozark-Ouachita Mesic Hardwood Forest	Suitable
Ozark-Ouachita Pine-Oak Forest/Woodland	Suitable
Ozark-Ouachita Riparian	Suitable
Urban/Suburban	Suitable
West Gulf Coastal Plain Large River Floodplain Forest	Suitable
West Gulf Coastal Plain Mesic Hardwood Forest	Suitable
West Gulf Coastal Plain Red River Floodplain Forest	Suitable
West Gulf Coastal Plain Sandhill Oak and Shortleaf Pine Forest and Woodland	Suitable
West Gulf Coastal Plain Small Stream/River Forest	Suitable

Problems Faced

KNOWN PROBLEM: Loss of old growth forests.	Threat: Habitat destruction Source: Forestry activities
KNOWN PROBLEM: Use of chimney caps prevents use of chimneys as nesting locations.	Threat: Habitat disturbance Source: Urban development
POTENTIAL PROBLEM: Temperature extremes and heavy rains affect food resources, survivorship, and nest success.	Threat: Biological alteration Source:
POTENTIAL PROBLEM: Widespread pesticide use reduces aerial insects.	Threat: Toxins/contaminants Source: Agricultural practices

Data Gaps/Research Needs

Determine the extent to which swifts are using natural sites (e.g. trees, caves) for roosting and nesting.
Quantify the availability and occupancy of man-made nesting and roosting sites (e.g. chimneys, swift towers, outbuildings, wells, silos) to determine if these sites are a limiting factor.

Conservation Actions

	Importance	Category
Educate homeowners and chimney and pest control professionals about swift-friendly management practices.	High	Public Relations/Education
Identify and protect natural nest and roost sites.	High	Habitat Protection
Protect old growth forests.	Medium	Habitat Protection

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. Encourage documentation, reporting, and monitoring of natural nest/roost locations. Promote the citizen science monitoring program A Swift Night Out (chimneyswifts.org). Continue to conduct Breeding Bird Surveys at all routes established in Arkansas.

Comments

Historically, this species depended on scattered, large-diameter, hollow trees for nesting. Populations increased tremendously when Europeans settled the land and provided chimneys. Now populations are declining because people are capping old chimneys to keep animals out, and new chimneys are not as suitable. Uncapping chimneys and providing swift nesting towers may help stop the decline. (ANHC 2003, Cink and Collins 2002, Clawson 1982, Duzan and others 2003, 2003A, Evans and Kirkman 1980, Fitzgerald 2000, Hamel 1992, Hines et al. 2013, Jacobs 2001, James and Neal 1986, Martin and Finch 1995, Robbins and Easterla 1992, Steeves et al. 2014).

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Charadrius melodus

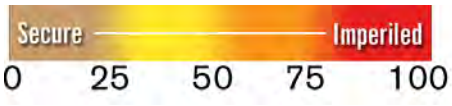
Piping Plover

Class: Aves

Order: Charadriiformes

Family: Charadriidae

Priority Score: 43 **out of 100**



Population Trend: Decreasing

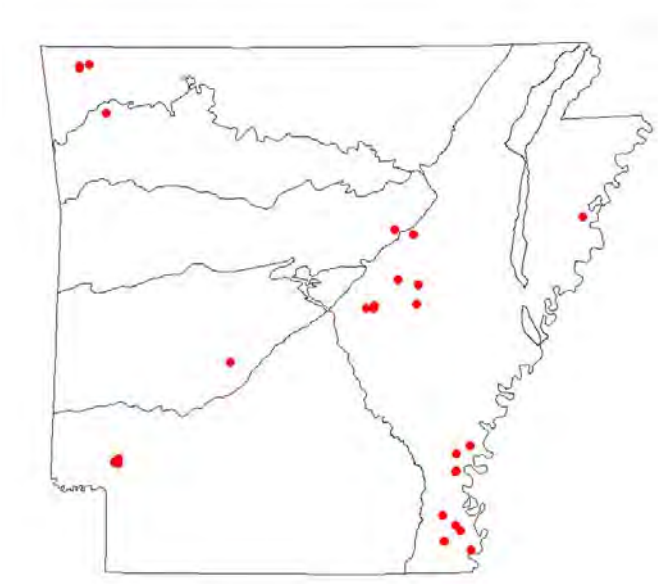
Residence: Transient

Global Rank: G3 — Vulnerable species

State Rank: S1N — Critically imperiled nonbreeding species in Arkansas

Distribution

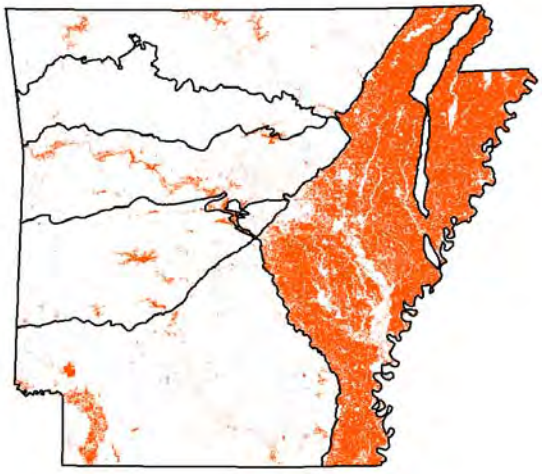
Occurrence Records



Ecoregions where the species occurs:

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

Habitat Map



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

Problems Faced

KNOWN PROBLEM: Lack of mud flats during migration as a result of hydrological alteration.	Threat: Hydrological alteration Source: Water diversion

Data Gaps/Research Needs

No data gaps or research needs were identified.

Conservation Actions

	Importance	Category
Maintain or restore mud flats.	High	Habitat Protection
Provide mud flat habitat by drawing down fish ponds in July - November.	High	Habitat Restoration/Improvement
Provide mud flat habitat by manipulation reservoirs (both public and private) during July - November migration, and where possible, during March to early June migration.	Medium	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. Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

This species is listed as a highly imperiled species by the U.S. Shorebird Conservation Plan. Although this species occurs in Arkansas only in small numbers during migration, it is a Federally Threatened species, and thus warrants attention. Reservoir shoreline was the most common habitat used on inland migration, but birds also stopped at natural lakes, rivers, marsh wetlands, industrial ponds and fish farms where the substrate type is predominantly mud flat. Wetlands, impoundments, and agricultural fields that are managed to provide mud flat habitat from July- November for other migratory shorebirds should provide foraging habitat for this species as well. (Duzan and others 2003, 2003A, Haig and Elliot-Smith 2004, U.S. Shorebird Conservation Plan 2004)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Chordeiles minor

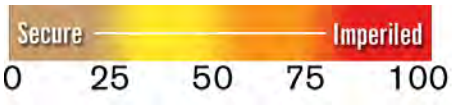
Common Nighthawk

Class: Aves

Order: Caprimulgiformes

Family: Caprimulgidae

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



Population Trend: Decreasing

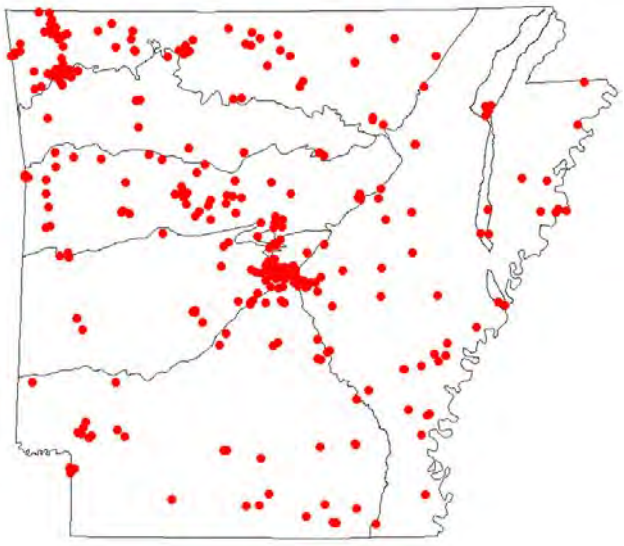
Residence:

Global Rank: G5 — Secure

State Rank: S2B — Imperiled breeding species in Arkansas

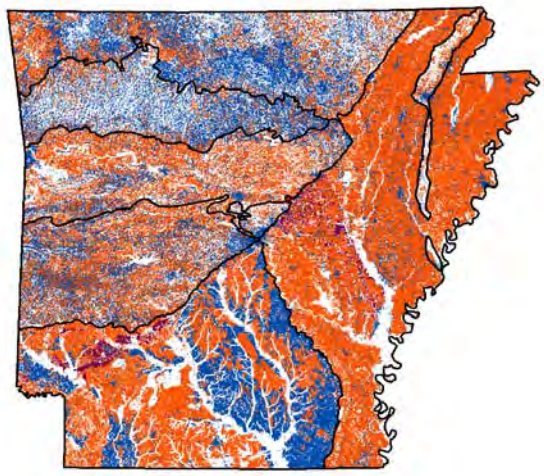
Distribution

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
Interior Highlands Calcareous Glade and Barrens	Suitable
Interior Highlands Dry Acidic Glade and Barrens	Suitable
Lower Mississippi Alluvial Plain Grand Prairie	Optimal
Lower Mississippi River Dune Woodland, Pond, and Forest	Marginal
Ozark-Ouachita Dry Oak and Pine Woodland	Marginal
Ozark-Ouachita Pine/Bluestem Woodland	Marginal
Ozark-Ouachita Prairie and Woodland	Optimal
Pasture Land	Marginal
Urban/Suburban	Suitable
West Gulf Coastal Plain Calcareous Prairie and Woodland	Optimal
West Gulf Coastal Plain Pine-Hardwood Flatwoods	Suitable

Problems Faced

KNOWN PROBLEM: Loss of insect prey due to increased use and effectiveness of insecticides.	Threat: Biological alteration Source: Agricultural practices
KNOWN PROBLEM: Loss of insect prey due to increased use and effectiveness of insecticides.	Threat: Biological alteration Source: Urban development
KNOWN PROBLEM: Loss of openland habitat due to succession.	Threat: Alteration of natural fire regimes Source: Fire suppression

Chordeiles minor
Common Nighthawk

Data Gaps/Research Needs

Determine breeding success.

Determine effects of insecticide use on prey availability.

Conservation Actions

	Importance	Category
Implement prescribed fire to help create bare patches for nesting.	Medium	Fire Management
Restore and maintain native grasslands.	High	Habitat Restoration/Improvement

Monitoring Strategies

Continue to conduct Breeding Bird Surveys at all routes established in Arkansas. Conduct species specific routes, in urban/suburban environments, following Nightjar Survey Network protocols. www.nightjars.org

Comments

Data from the North American Breeding Bird Survey indicate that the species has declined roughly 2% per year between 1966-2010. A cause for decline includes the increased use of agricultural pesticides, including synthetic neonicotinoids, which has reduced the prey base of flying insects. This species commonly nests on gravel rooftops in urban and suburban areas. The increased use of rubber material for rooftops instead of gravel is a suspected cause of decline for urban populations.

(Brigham and others 2011, NABCI 2014)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Cistothorus platensis

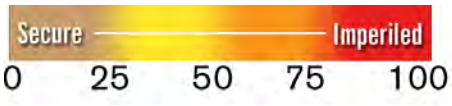
Sedge Wren

Class: Aves

Order: Passeriformes

Family: Troglodytidae

Priority Score: 21 **out of 100**



Population Trend: Stable

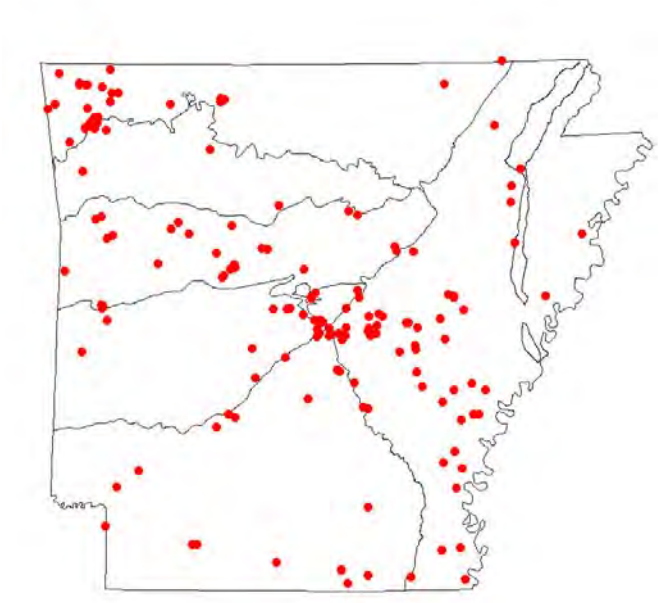
Residence: Permanent

Global Rank: G5 — Secure

State Rank: S1S2B,S4N — Critically imperiled breeding species in Arkansas (uncertain rank), apparently secure nonbreeding species in Arkansas

Distribution

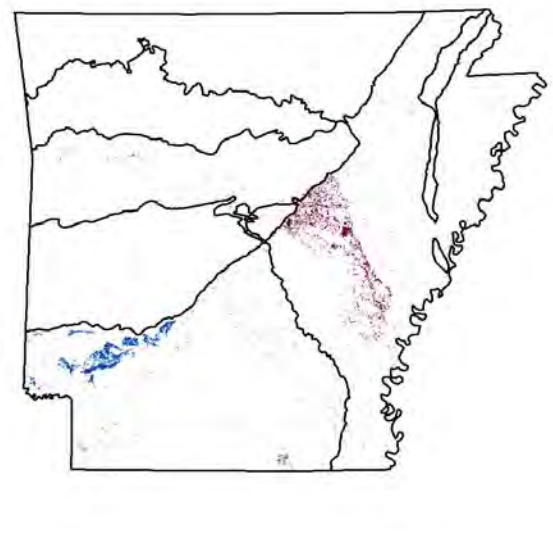
Occurrence Records



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
Herbaceous Wetland	Optimal
Lower Mississippi Alluvial Plain Grand Prairie	Optimal
Ozark-Ouachita Prairie and Woodland	Suitable
West Gulf Coastal Plain Calcareous Prairie and Woodland	Suitable

Problems Faced

KNOWN PROBLEM: Loss and degradation of herbaceous wetlands.	Threat: Habitat destruction or conversion Source: Agricultural practices
KNOWN PROBLEM: Loss and degradation of herbaceous wetlands.	Threat: Habitat destruction or conversion Source: Forestry activities
KNOWN PROBLEM: Loss and degradation of seasonal wetland habitats.	Threat: Habitat disturbance Source: Excessive groundwater withdrawal
KNOWN PROBLEM: Loss and degradation of seasonal wetland habitats.	Threat: Habitat destruction or conversion Source: Agricultural practices
KNOWN PROBLEM: Loss and degradation of seasonal wetland habitats.	Threat: Habitat destruction or conversion Source: Urban development
KNOWN PROBLEM: Loss of native warm season grasslands.	Threat: Habitat destruction or conversion Source: Agricultural practices
KNOWN PROBLEM: Nest failure from destruction of nests due to earlier and more frequent haying.	Threat: Habitat disturbance Source: Agricultural practices

Data Gaps/Research Needs

Identify breeding sites.

Identify important wintering locations.

Conservation Actions

	Importance	Category
Conduct periodic disturbance to limit woody encroachment, timed to provide dense emergent wetland vegetation for nesting and/or wintering.	Medium	Habitat Restoration/Improvement
Conduct spring burns to provide optimal vegetation height and density and reduce litter.	Medium	Fire Management
Protect emergent wetlands and grasslands.	High	Habitat Protection
Restore emergent wetlands.	High	Habitat Restoration/Improvement
Restore native warm season grasses.	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 breeding and important wintering locations. Continue tracking of this species by the Arkansas Natural Heritage Commission.

Comments

This species lives at the interface of grasslands and wetlands; they nest where the soil is saturated and sedges mix with grasses. Unfortunately, this habitat type has been frequently drained for farming. Frequent haying and over-grazing decrease habitat quality as well. Fortunately, providing habitat through the Conservation Reserve Program has boosted numbers in some areas.This species would benefit from farm bill program projects that protect, restore, and manage wetlands and grasslands. (Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Dechant and others 2003, Hamel 1992, Herkert and others 2001, James and Neal 1986, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Coccyzus americanus

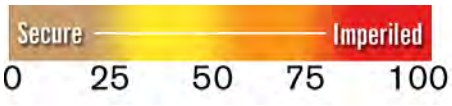
Yellow-billed Cuckoo

Class: Aves

Order: Cuculiformes

Family: Cuculidae

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



Population Trend: Decreasing

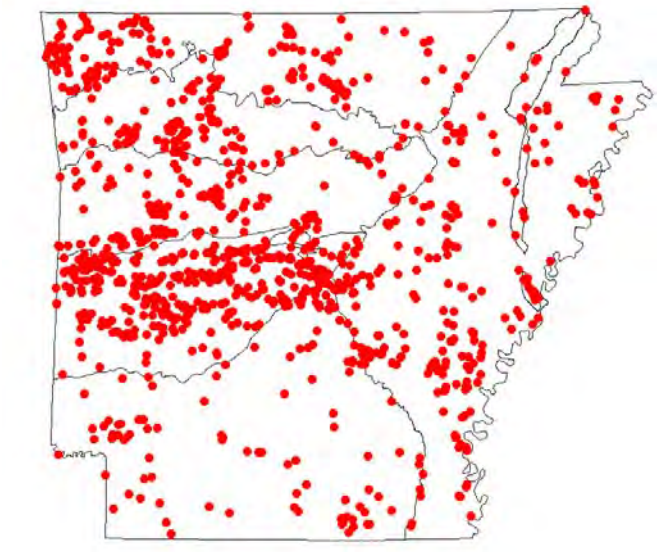
Residence: Breeding

Global Rank: G5 — Secure

State Rank: S3B — Vulnerable breeding species in Arkansas

Distribution

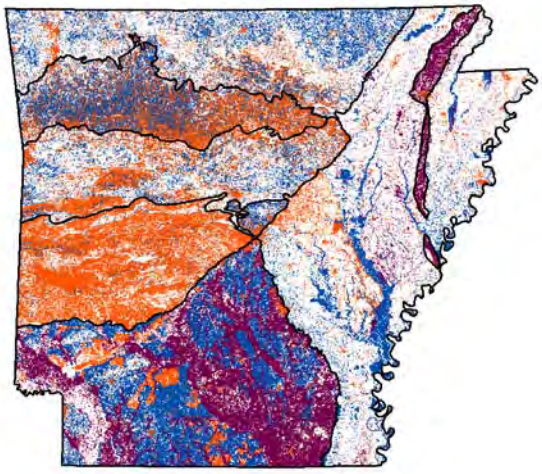
Occurrence Records



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



Coccyzus americanus
Yellow-billed Cuckoo

Habitats	Weight
Crowley's Ridge Loess Slope Forest	Optimal
Cultivated Forest	Marginal
Lower Mississippi Alluvial Plain Grand Prairie	Marginal
Lower Mississippi Flatwoods Woodland and Forest	Optimal
Lower Mississippi River Bottomland Depression	Marginal
Lower Mississippi River Dune Woodland, Pond, 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	Suitable
Ozark-Ouachita Dry Oak Woodland	Suitable
Ozark-Ouachita Dry-Mesic Oak Forest	Suitable
Ozark-Ouachita Forested Seep	Suitable
Ozark-Ouachita Large Floodplain	Suitable
Ozark-Ouachita Mesic Hardwood Forest	Optimal
Ozark-Ouachita Pine/Bluestem Woodland	Marginal
Ozark-Ouachita Pine-Oak Forest	Marginal
Ozark-Ouachita Pine-Oak Forest	Marginal
Ozark-Ouachita Prairie and Woodland	Suitable
Ozark-Ouachita Riparian	Optimal
Urban/Suburban	Marginal
West Gulf Coastal Plain Calcareous Prairie and Woodland	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	Marginal
West Gulf Coastal Plain Red River Floodplain Forest	Optimal
West Gulf Coastal Plain Sandhill Oak and Shortleaf Pine Forest and Woodland	Marginal

Coccyzus americanus
Yellow-billed Cuckoo

Habitats

Habitats	Weight
West Gulf Coastal Plain Seepage Swamp and Baygall	Suitable
West Gulf Coastal Plain Small Stream/River Forest	Optimal
West Gulf Coastal Plain Wet Hardwood Flatwoods	Suitable

Problems Faced

KNOWN PROBLEM: Loss of dense scrub cover near streams, marshes, and wetlands within otherwise open woodlands.	Threat: Riparian habitat destruction Source: Forestry activities
KNOWN PROBLEM: Loss of dense scrub cover near streams, marshes, and wetlands within otherwise open woodlands.	Threat: Riparian habitat destruction Source: Conversion of riparian forest
KNOWN PROBLEM: Loss of quality nesting habitat due to habitat fragmentation.	Threat: Habitat fragmentation Source: Urban development
KNOWN PROBLEM: Population declines thought to be linked to habitat loss.	Threat: Habitat fragmentation Source: Forestry activities
KNOWN PROBLEMS: Loss of forest stands containing well-developed midstories for nesting.	Threat: Altered composition/structure Source: Forestry activities
POTENTIAL PROBLEM: Loss of both hardwood and pine pole-stage timber plantations.	Threat: Altered composition/structure Source: Forestry activities
POTENTIAL PROBLEM: Loss of quality nesting habitat due to habitat fragmentation.	Threat: Habitat fragmentation Source: Resource extraction
POTENTIAL PROBLEM: Toxins and contaminants in agricultural areas may pose a threat.	Threat: Toxins/contaminants Source: Agricultural practices

Data Gaps/Research Needs

Additional information on life history on the breeding grounds is needed with a focus on breeding territory, site selection, site tenacity, fecundity, and mortality, and dispersal and survivorship of immature birds.
Determine causes of population decline.
Determine response to prescribed burning.
Evaluate effectiveness of management actions to provide breeding habitat for source populations.

Conservation Actions

Conservation Actions	Importance	Category
Create, restore, and maintain the shrubby component of riparian habitat.	High	Habitat Restoration/Improvement
Protect riparian forested habitat.	Medium	Habitat Protection
Reduce pesticide use near riparian and orchard areas.	Medium	Threat Abatement

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. If more accurate data are needed, a species specific census involving playback calls should be developed and conducted. Continue to conduct Breeding Bird Surveys at all routes established in Arkansas.

Comments

Although locally abundant in extensive mature forests, this species has undergone steep population declines and has disappeared from portions of its range. It is sensitive to habitat fragmentation. Breeding is often triggered by an abundant food supply of large orthoptera, especially caterpillars and cicadas. This species will occasionally lay eggs in the nests of other species. (Arkansas Audubon Society 2012, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, Hughes 1999, James and Neal 1986, Martin and Finch 1995, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Colinus virginianus

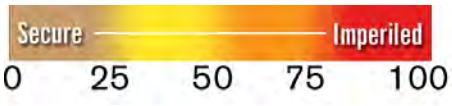
Northern Bobwhite

Class: Aves

Order: Galliformes

Family: Odontophoridae

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



Population Trend: Decreasing

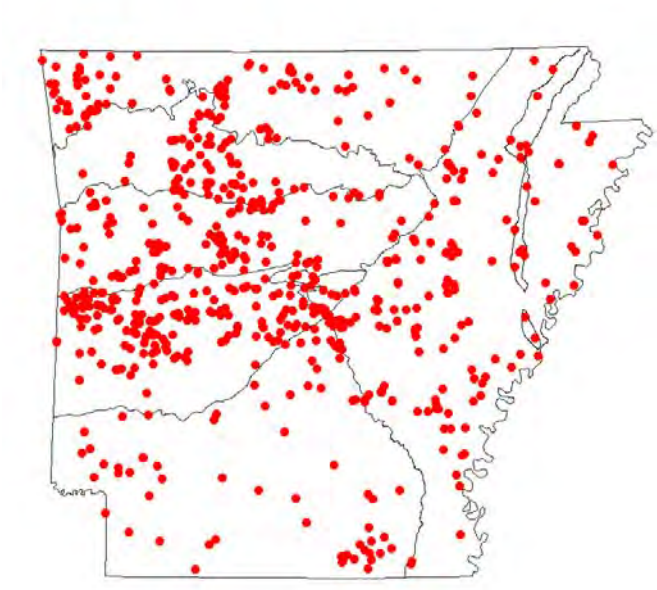
Residence: Permanent

Global Rank: G5 — Secure

State Rank: S3 — Vulnerable in Arkansas

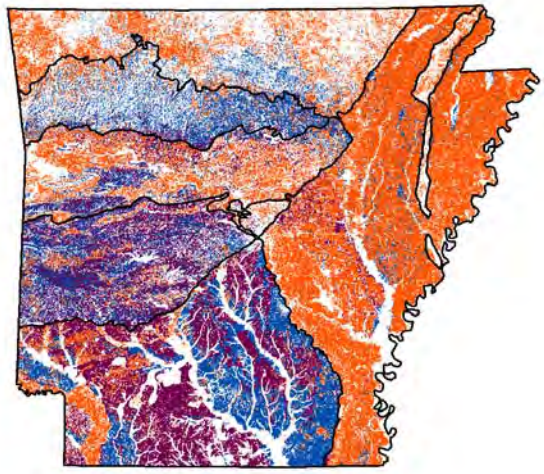
Distribution

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
Crop Land	Marginal
Cultivated Forest	Marginal
Interior Highlands Dry Acidic Glade and Barrens	Suitable
Lower Mississippi Alluvial Plain Grand Prairie	Optimal
Lower Mississippi Flatwoods Woodland and Forest	Marginal
Lower Mississippi River Dune Woodland, Pond, and Forest	Marginal
Ozark-Ouachita Dry Oak and Pine Woodland	Optimal
Ozark-Ouachita Pine/Bluestem Woodland	Optimal
Ozark-Ouachita Pine-Oak Forest	Suitable
Ozark-Ouachita Pine-Oak Woodland	Suitable
Ozark-Ouachita Prairie and Woodland	Optimal
Pasture Land	Marginal
West Gulf Coastal Plain Calcareous Prairie and Woodland	Optimal
West Gulf Coastal Plain Pine-Hardwood Flatwoods	Marginal
West Gulf Coastal Plain Pine-Hardwood Flatwoods	Suitable
West Gulf Coastal Plain Saline Glade	Suitable

Problems Faced

KNOWN PROBLEM: Conversion to non-native, cool and warm season grasses (fescue, bermuda grass, bahiagrass).	Threat: Altered composition/structure Source: Exotic species
KNOWN PROBLEM: Fragmentation of early successional habitat and native warm season grasses.	Threat: Habitat fragmentation Source: Fire suppression
KNOWN PROBLEM: Habitat fragmentation.	Threat: Habitat fragmentation Source: Grazing/Browsing
KNOWN PROBLEM: Habitat fragmentation.	Threat: Habitat fragmentation Source: Agricultural practices
KNOWN PROBLEM: Lack of contiguous blocks of suitable habitat.	Threat: Habitat fragmentation Source: Urban development
KNOWN PROBLEM: Loss of early successional habitat and native warm season grasses.	Threat: Habitat destruction or conversion Source: Fire suppression
KNOWN PROBLEM: Loss of early successional habitat.	Threat: Habitat destruction or conversion Source: Agricultural practices
POTENTIAL PROBLEM: Decreased prey availability due to pesticide use.	Threat: Biological alteration Source: Agricultural practices
POTENTIAL PROBLEM: Fire ant predation on chicks.	Threat: Extraordinary predation/parasitism/disease Source: Predation
POTENTIAL PROBLEM: Loss of early successional habitat within pine plantation clearcut areas.	Threat: Habitat destruction or conversion Source: Forestry activities

Data Gaps/Research Needs

No data gaps or research needs were identified.

Conservation Actions

	Importance	Category
Increase connectivity of available habitat.	High	Habitat Restoration/Improvement
Restore early successional habitat.	High	Habitat Restoration/Improvement
Restore native warm season grasses and forbs.	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 state agency brood surveys for this species.

Comments

This popular gamebird is in decline region-wide due to habitat degradation. Agricultural practices and forestry practices that remove weedy and shrubby vegetation also remove nesting and foraging habitat. Fire suppression also has led to habitat loss.

Farm Bill programs, particularly the applicable practices within the Conservation Reserve program (CP-33), that promote practices focusing on the establishment of early successional habitat may improve quail habitat. Private landowners should be encouraged to perform prescribed burns. (ANHC 2003, Baerg 1927, Bobwhite Quail Mgmt., Brennan 1991, 1999, Clawson 1982, Dickson and others 1983, Dimmick and others 2002, Duzan and others 2003, 2003A, Evans and Kirkman 1980, Fitzgerald 2000, Hamel 1992, Jacobs 2001, James and Neal 1986, Landers and Mueller 1986, Martin and Finch 1995, Robbins and Easterla 1992, Rosene 1969, Stoddard 1931).

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan

Cygnus buccinator

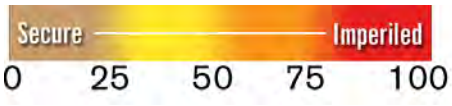
Trumpeter Swan

Class: Aves

Order: Anseriformes

Family: Anatidae

Priority Score: 17 **out of 100**



Population Trend: Increasing

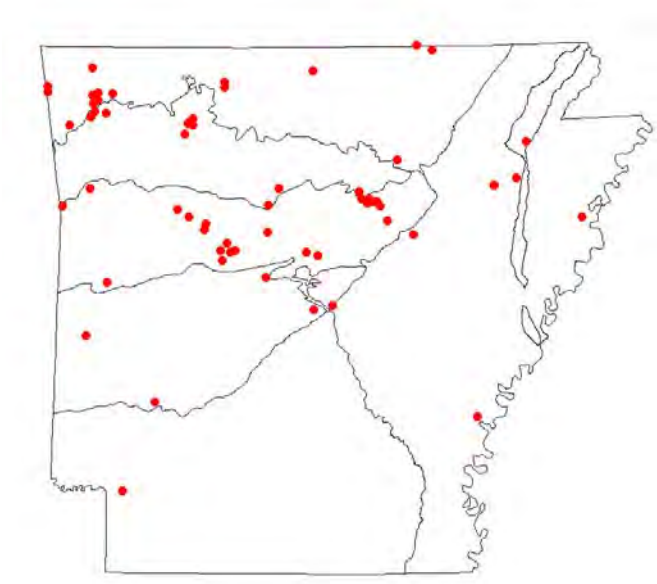
Residence: Winter

Global Rank: G4 — Apparently secure species

State Rank: S2N — Imperiled nonbreeding species in Arkansas

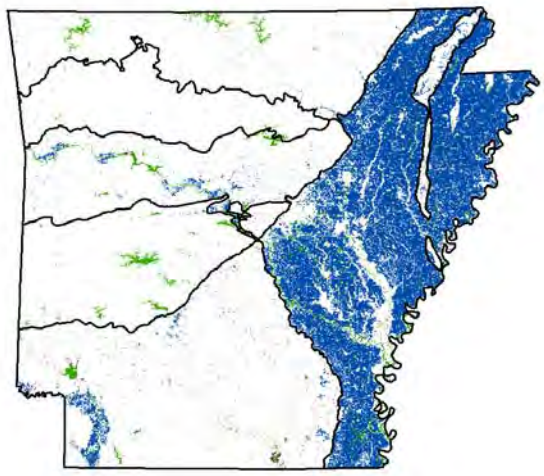
Distribution

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	Suitable
Herbaceous Wetland	Optimal
Mud Flats	Marginal
Ponds, Lakes, and Water Holes	Obligate

Problems Faced

KNOWN PROBLEM: Collisions with power lines.	Threat: Collision with man-made structures Source: Commercial/industrial development
KNOWN PROBLEM: Collisions with power lines.	Threat: Collision with man-made structures Source: Urban development
KNOWN PROBLEM: Lead poisoning from ingestion of lead fishing tackle and lead shot.	Threat: Toxins/contaminants Source: Recreation
KNOWN PROBLEM: Dependency on supplemental feeding.	Threat: Biological alteration Source: Management of/for certain species
POTENTIAL PROBLEM: Competition with Mute Swans.	Threat: Extraordinary competition for resources Source: Exotic species

Data Gaps/Research Needs

As Mute Swans continue to expand into the current Trumpeter Swan breeding and wintering ranges, an understanding of the competitive interaction between these 2 species is needed to understand how the expansion of this exotic species may impact Trumpeter Swans.
Identify suitable foraging sites.
Information is needed on the differences in foraging ecology and nutritional needs between swans foraging on agricultural crops versus aquatic vegetation.
Specific data on the exact routes and sites used during migration and on the wintering grounds are needed to adequately protect and manage critical habitats.

Conservation Actions

	Importance	Category
Control breeding flighted and pinioned mute swans in Arkansas.	High	Public Relations/Education
Control breeding flighted and pinioned mute swans in Arkansas.	High	Threat Abatement
Install highly visible power line markers in on power lines around known wintering ponds and wetlands used by swans	High	Threat Abatement
Plant winter forage.	Medium	Habitat Restoration/Improvement
Protect quality emergent wetlands.	High	Habitat Restoration/Improvement
Restore and manage emergent wetlands.	High	Habitat Restoration/Improvement
Restore and manage for emergent and native aquatic vegetation in ponds, lakes and water holes.	High	Habitat Restoration/Improvement

Monitoring Strategies

Continue and expand winter and summer surveys for both Mute Swans and Trumpeter Swans.

Comments

In 1988, 1 collared Trumpeter Swan was observed on a pond adjacent to a nuclear power generating plant near Russelville AR. Banded near LaCreek NWR in Nebraska, this was the first Trumpeter Swan reported in Arkansas in over 80 years. In 1995, 9 Trumpeter Swans were observed on Magness Lake in Cleburne County. During the winter of 2001-2002, 45 swans was observed at Magness Lake and reliable reports of counts over 180 at Magness Lake were received in 2010 (K Rowe pers. Comm.) The construction of ponds as clean water sources for shale oil extraction in the vicinity of Magness Lake as well as the ponds' landowners feeding swans has increased estimates of swans wintering in Cleburne County to over 250 in 2014-5. In 2008-10 AGFC partnered with Iowa DNR and released 49 immature trumpeters raised in Iowa DNR's Trumpeter Swan Restoration Project. These swans were released in the Ozarks and Arkansas River Valley in a reverse migration experiment that proved successful as released collared swans returned to AR in subsequent years to winter. Several swans released in this experiment have been observed wintering in the Arkansas River Valley area as adults with un-collared mates and their cygnets (K. Rowe pers comm). Wintering Trumpeter Swan population estimates from a volunteer 2013-14 survey conducted by AGFC totaled about 525 swans. Trumpeter Swan mortality in Arkansas has been caused by lead poisoning, collision with power lines and illegal shooting (Rowe pers. Comm).

(Arkansas Audubon Society 2005, Carter and others 2000, CWCS 2004, CWCS 2005A, CWCS 2005B, Hamel 1992, James and Neal 1986, Martin and Finch 1995, Mitchell 1994, Mitchell and Eichholz 2010, National Audubon Society 2002, Rich and others 2004, Sauer and others 2004)

Taxa Association Team and Peer Reviewers

AGFC Ms. Karen Rowe, ANHC Mr. Bill Holimon, USFWS-retired Mr. Allan Mueller, Audubon Arkansas Dr. Dan Scheiman, AGFC Mr. Dick Baxter, USFS Mr. Leif Anderson, USGS Dr. David Krementz, ASU Dr. Than Boves, ATU Dr. Chris Kellner, UA Dr. Kim Smith, UAM Dr. Doug Osborne, AGFC Mr. Garrick Dugger, AGFC Mr. Bubba Groves, AGFC Ms. Allison Fowler, USFWS Mr. Mike Budd, USFWS Ms. Erin Knoll, USFS Mr. Steve Duzan