

Section 3. The Ecoregions of Arkansas

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|---|------|
| Conservation Priority | 1125 |
| Ozark Highlands Ecoregion | 1126 |
| Species of greatest conservation need | |
| Habitats that occur in the Ozark Highlands | |
| Problems faced by SGCN | |
| Conservation actions | |
| Boston Mountain Ecoregion: | 1144 |
| Species of greatest conservation need | |
| Habitats that occur in the Boston Mountains | |
| Problems faced by SGCN | |
| Conservation actions | |
| Arkansas Valley Ecoregion: | 1159 |
| Species of greatest conservation need | |
| Habitats that occur in the Arkansas Valley | |
| Problems faced by SGCN | |
| Conservation actions | |
| Ouachita Mountains Ecoregion: | 1173 |
| Species of greatest conservation need | |
| Habitats that occur in the Ouachita Mountains | |
| Problems faced by SGCN | |
| Conservation actions | |
| South Central Plains Ecoregion: | 1188 |
| Species of greatest conservation need | |
| Habitats that occur in the South Central Plains | |
| Problems faced by SGCN | |
| Conservation actions | |

Mississippi Alluvial Plain Ecoregion: 1203
Species of greatest conservation need
Habitats that occur in the Mississippi Alluvial Plain
Problems faced by SGCN
Conservation actions
Mississippi Valley Loess Plains: 1222
Species of greatest conservation need
Habitats that occur in the Mississippi Valley Loess Plains
Problems faced by SGCN
Conservation actions

The Ecoregions of Arkansas

Ecoregions denote areas of general similarity in ecosystems and in the type, quality, and quantity of environmental resources. They are designed to serve as a spatial framework for the research, assessment, management and monitoring of ecosystems and ecosystem components.

Ecoregions are general purpose regions that are critical for structuring and implementing ecosystem management strategies across federal agencies, state agencies, and nongovernment organizations that are responsible for different types of resources in the same geographical areas.

A Roman numeral hierarchical scheme has been adopted for different levels of ecological regions. Level I is the coarsest level, dividing North America into 15 ecological regions. Level II divides the continent into 52 regions. At level III, the continental United States (Figure 3.1) contains 104 ecoregions and the conterminous United States has 84 ecoregions (U.S. Environmental Protection Agency [USEPA], 2003). Level IV ecoregions are further subdivisions of level III ecoregions.

In Arkansas (Figure 3.2), there are seven level III ecoregions and 32 level IV ecoregions. Arkansas' ecological diversity is strongly related to regional physiography, geology, soil, climate and land use. Elevated karst plateaus, folded mountains, agricultural valleys, forested uplands, and bottomland forests occur. Fire-maintained prairie was once extensive in several parts of the state (adapted from Woods and others 2004).

Ecoregional Assessments have been completed by The Nature Conservancy for land covered by five of the seven ecoregions. The assessments are located in Appendices 3.1 (pages 1698-1747), 3.2 (pages 1748-1793) and 3.3 (pages 1794-1849).

Figure 3.1. Level III ecoregions in the United States.

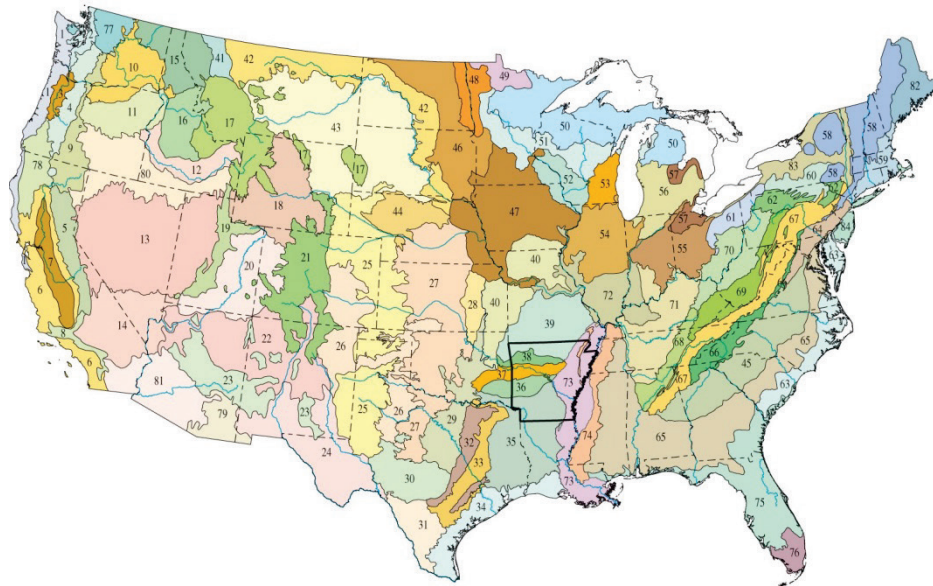
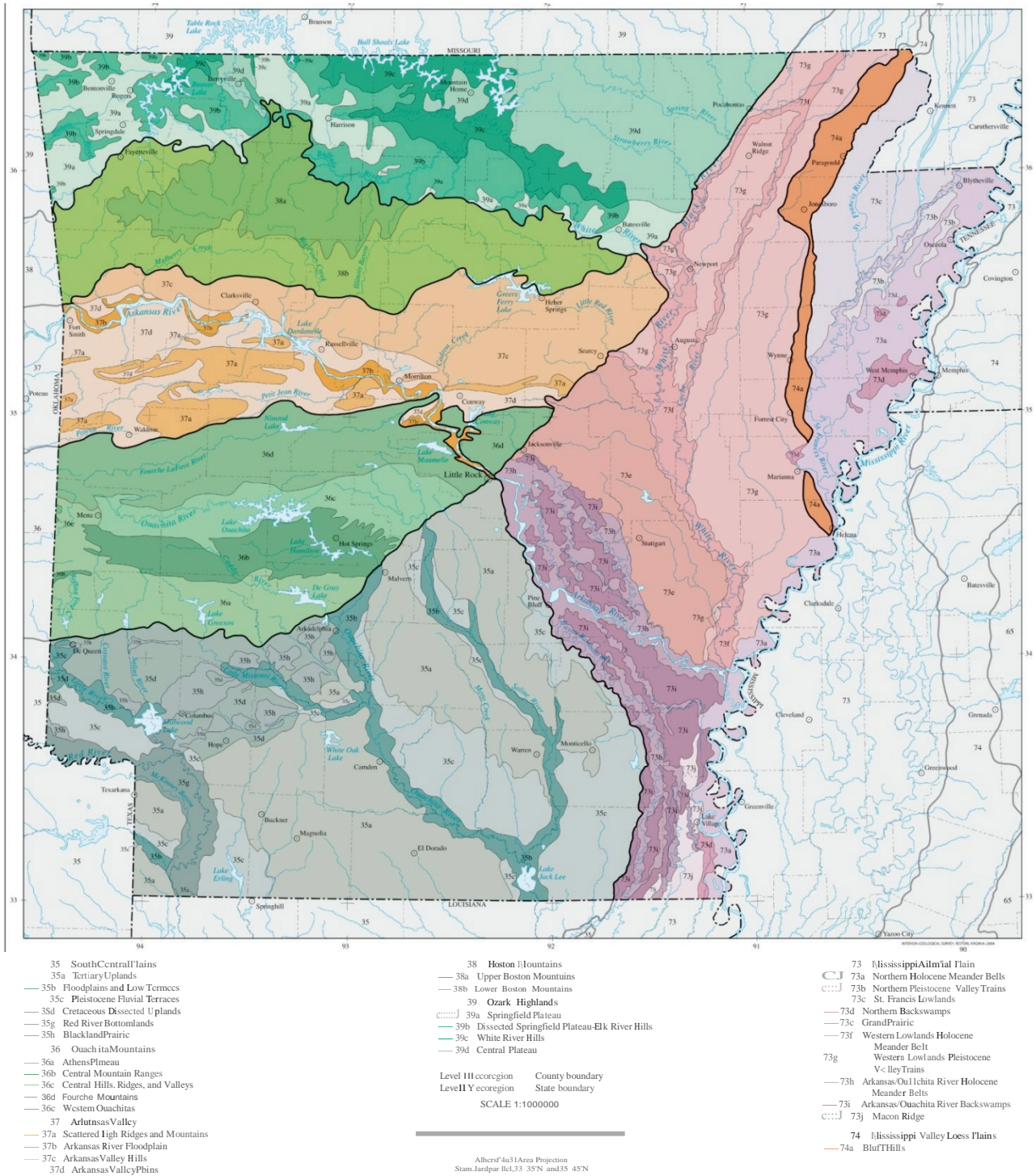


Figure 3.2. Level III and IV ecoregions in Arkansas (Woods and others 2004).



Conservation priority based on evaluation of species of greatest conservation need (SGCN)

Arkansas determined which ecoregions have more species of greatest conservation concern and/or more greatly imperiled species. Ecoregion Scores (Figure 3.3) equal the sum of all Species Priority Scores (defined on pages 7-15) within an ecoregion. A higher score implies more species of greatest conservation need and/or species with a greater need for conservation (Table 3.1).

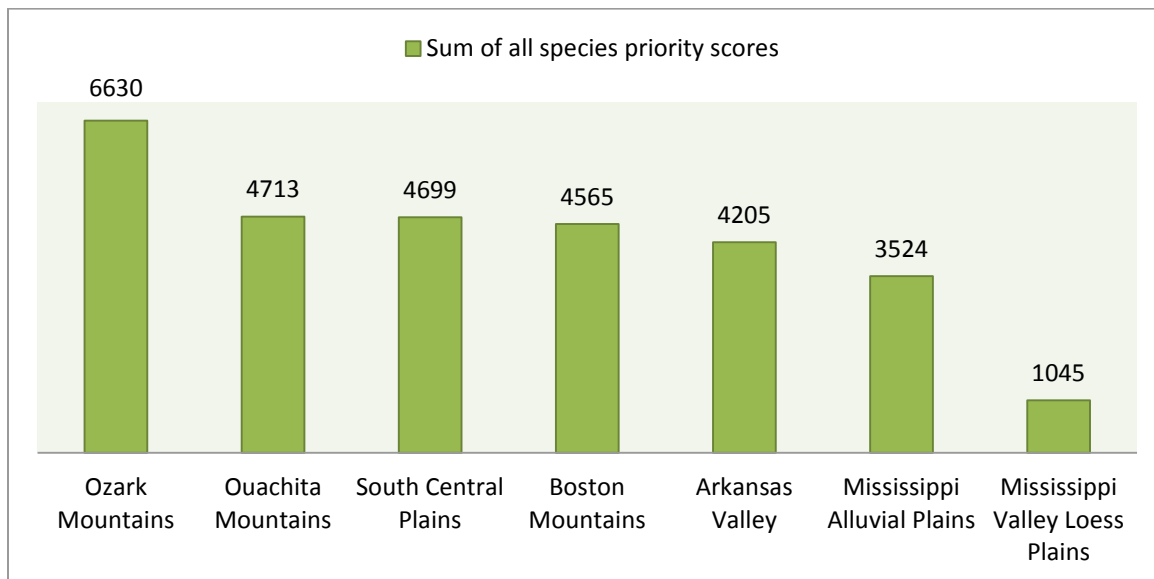


Figure 3.3. Sum of species priority scores by ecoregion.

Table 3.1. Average SPS (Species Priority Score) and number of SGCN in each ecoregion. A greater number of SGCN are affected by conservation actions in ecoregions with higher scores. A higher average SPS means that the ecoregion’s species are in greater need of conservation actions.

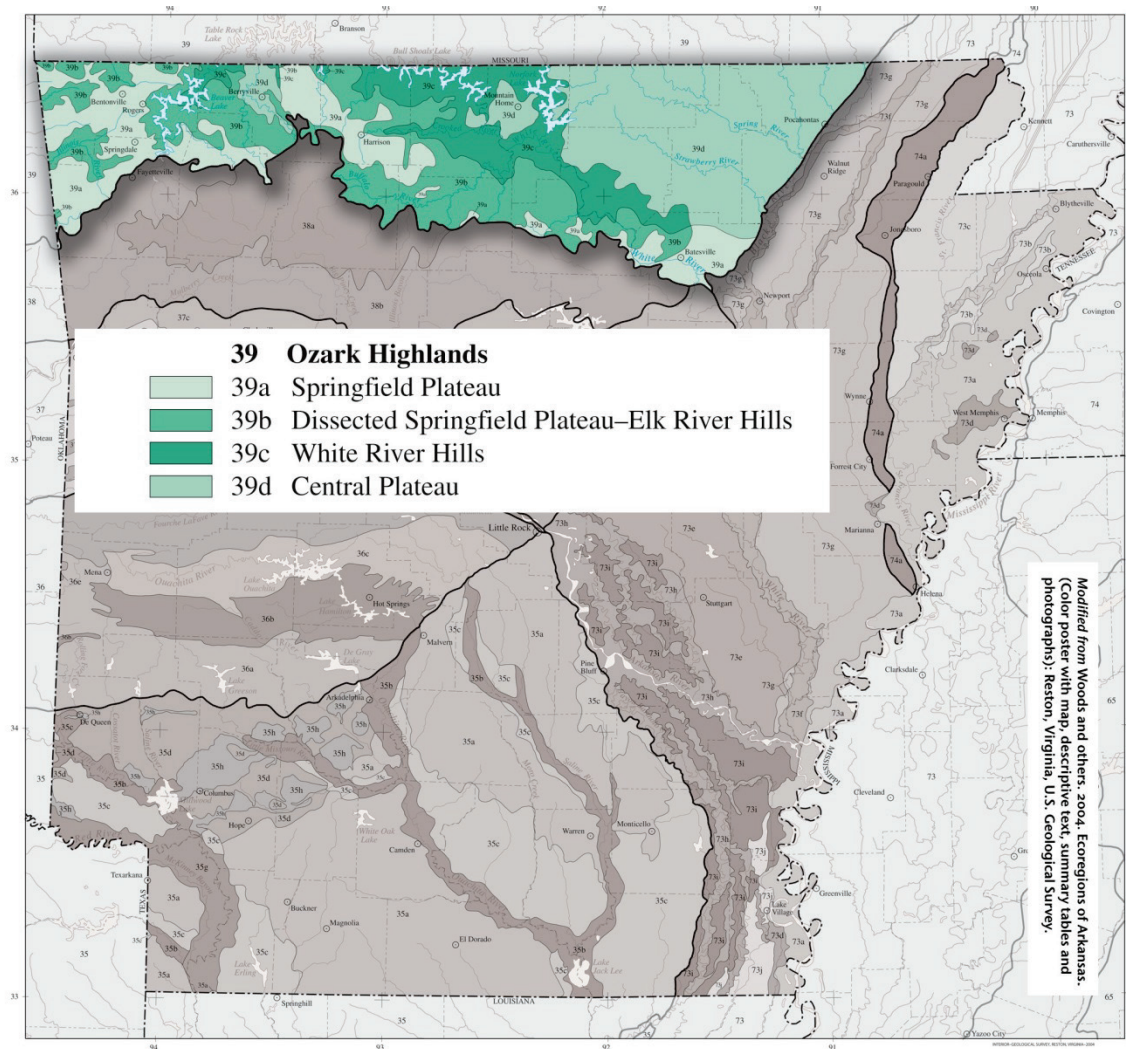
| Ecoregion | Total SGCN | Average Priority Score |
|---------------------------------|------------|------------------------|
| Ozark Mountains | 218 | 30 |
| South Central Plains | 170 | 28 |
| Ouachita Mountains | 164 | 29 |
| Boston Mountains | 160 | 29 |
| Arkansas Valley | 161 | 26 |
| Mississippi Alluvial Plain | 146 | 24 |
| Mississippi Valley Loess Plains | 51 | 20 |

Ozark Highlands (Ecoregion 39)

The Ozarks formed as the Ouachita mountains weighted down the edge of the North American continent, flexing the crust of the Arkoma Basin upward; younger sedimentary layers then eroded away, exposing the older, Paleozoic rocks that dominate the area. Ecoregion 39 is composed of the Springfield and Salem plateaus and largely underlain by highly soluble and fractured limestone and dolomite.

It is level to highly dissected, partly forested and rich in karst features. Caves, sink-holes and underground drainage occur, heavily influencing surficial water availability and water temperature. Clear, cold, perennial, spring-fed streams are common and typically have gravelly substrates; in addition, many small dry valleys occur.

Figure 3.4. Ozark Highlands Ecoregion.





Ozark Highlands - Springfield Plateau

Ecoregion 39 is not as mountainous as Ecoregions 36 or 38, but is higher and more rugged than Ecoregion 73. Habitat diversity and species richness is high. Soils are often cherty and have developed from carbonate rocks or interbedded chert, sandstone and shale; mesic Ultisols, Alfisols and Mollisols are common. Soil order mosaic, soil temperature regime and lithology are all distinct from nearby Ecoregions 36, 37, 38, and 73.

Potential natural vegetation is mostly oak–hickory forest. Open forest dominates rugged areas and pastureland and hayland are common on nearly level sites. Shortleaf pine grows on steep, cherty escarpments and on shallow soils derived from sandstone; it becomes more common in Ecoregions 35, 36 and the southern portion of Ecoregion 38. Glades dominated by grass and eastern redcedar are found on shallow, droughty soils especially over dolomite.

Primary land uses are logging, housing, recreation and, especially, poultry and livestock farming. Water quality in the Ozark Highlands (39) is different from the other ecoregions in Arkansas and is strongly influenced by lithology and land use practices. Alkalinity, total dissolved solids and total hardness values are relatively high, reflecting the influence of Ecoregion 39's distinctive limestone and dolomite. Fecal coliform and nitrite-nitrate values are elevated downstream of

improved pastureland that is intensively grazed by cattle and fields where animal wastes from confined poultry and hog operations have been applied. Parts of Ecoregion 39 are experiencing rapid population growth along with associated habitat alteration and water pollution. Fish communities characteristically have a preponderance of sensitive species and are usually dominated by a diverse minnow community along with sunfishes and darters.

Springfield Plateau

39a. The nearly level to rolling Springfield Plateau is underlain by cherty limestone of the Mississippian Boone Formation; it is less rugged and wooded than Ecoregions 38, 39b and 39c and lacks the Ordovician dolomite and limestone of Ecoregions 39c and 39d. Karst features, such as sinkholes and caves, are common. Cold, perennial, spring-fed streams occur.

Upland potential natural vegetation is primarily oak–hickory and also oak–hickory– pine forests; savannas and tall grass prairies also occurred and were maintained by fire. Today, most of the forest and almost all of the prairies have been replaced by agriculture or expanding residential areas. Poultry, cattle and hog farming are primary land uses; pastureland and hayland are common. Application of poultry litter to agricultural fields is a non-point source that can impair water quality. Total suspended solids and turbidity values in streams are usually low, but total dissolved solids and hardness values are high.

Dissected Springfield Plateau–Elk River Hills

39b. The Dissected Springfield Plateau–Elk River Hills are underlain by cherty limestone of the Mississippian Boone Formation and contain many karst features. Cold, perennial, spring-fed streams occur. Ecoregion 39b is more rugged and wooded than the lithologically similar Springfield Plateau (39a) and the lithologically dis- similar Central Plateau (39d).

Potential natural vegetation is oak–hickory and oak–hickory–pine forests. Short- leaf pine grows on the thin, cherty soils of steep slopes and is more common than in Ecoregion 39a, 39c and 39d. Scattered limestone glades occur, but are less extensive than on the dolomites of the lithologically distinct Ecoregion 39c.

Today, Ecoregion 39b remains dominated by forest and woodland. Logging, live- stock farming, woodland grazing, recreation, quarrying and housing are primary land uses.

White River Hills

39c. The forested White River Hills ecoregion is a highly dissected portion of the Salem Plateau that is underlain by cherty Ordovician dolomite and limestone. Soils are usually thin, rocky, steep and nonarable. Flat land is uncommon except along the White River. Ecoregion 39c is lithologically unlike another highly dissected portion of the Ozarks, Ecoregion 39b, where Mississippian cherty limestone of the Boone Formation predominates. Clear, cold, perennial,

spring-fed streams are common, but dry valleys occur.

Potential natural vegetation is oak–hickory forest, oak–hickory–pine forest and cedar glades. Glades are more extensive than elsewhere in Arkansas and occur on thin, droughty soils derived from carbonates. Pine is most common on steep, thin, cherty soils. Ecoregion 39c includes Table Rock, Bull Shoals, Norfolk and Beaver lakes. Turbidity and total suspended solids are usually low in its streams and rivers, but total dissolved solids and hardness values are high.

Central Plateau

39d. The Central Plateau is an undulating to hilly portion of the Salem Plateau that is dominated by agriculture. Ecoregion 39d is largely underlain by cherty Ordovician dolomite and limestone; it is lithologically distinct from another slightly dissected part of the Ozarks, the Springfield Plateau (39a). Karst features occur. The Central Plateau (39d) is less rugged and wooded than Ecoregions 38, 39b and 39c.

Natural vegetation is oak–hickory forest, oak–hickory–pine forest (often on soils derived from sandstone), barrens (on thin soils) and scattered cedar glades (on shallow, rocky, droughty soils from dolomite or limestone).

Today, pastureland, hayland and housing are common, but remnant forests and savannas occur in steeper areas. Turbidity, total suspended solids, total dissolved solids and hardness values are often higher than in Ecoregions 39a and 39c (adapted from Woods and others 2004).

Ozark Highlands Ecoregion:

Species of Greatest Conservation Need (SGCN)

Species of greatest conservation need (SGCN) in the Ozark Highlands are presented by taxa association (Table 3.2). A higher priority score indicates a greater need for actions to conserve the species. Calculation of the priority score is discussed in Section 2, pages 5-8. A ranked list of all SGCN associated with the ecoregion is presented in Table 3.3.

Table 3.2. SGCN by taxa association in the Ozark Highlands.

| Taxa Association | Common Name | Scientific Name | Priority Score |
|------------------|------------------------------------|-------------------------------|----------------|
| Amphibian | Ozark Hellbender | <i>Cryptobranchus bishopi</i> | 71 |
| | Oklahoma Salamander | <i>Eurycea tynnerensis</i> | 23 |
| | Crawfish Frog | <i>Lithobates areolatus</i> | 23 |
| | Ringed Salamander | <i>Ambystoma annulatum</i> | 19 |
| | Grotto Salamander "western clade" | <i>Eurycea spelaea</i> | 19 |
| | Grotto Salamander "northern clade" | <i>Eurycea spelaea</i> | 19 |
| | Boreal Chorus Frog | <i>Pseudacris maculata</i> | 19 |

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|------|-----------------------------------|--------------------------------|----|
| | Eastern Spadefoot | <i>Scaphiopus holbrookii</i> | 19 |
| | Hurter's Spadefoot | <i>Scaphiopus hurterii</i> | 19 |
| | Eastern Tiger Salamander | <i>Ambystoma tigrinum</i> | 15 |
| | Grotto Salamander "eastern clade" | <i>Eurycea spelaea</i> | 15 |
| | Wood Frog | <i>Lithobates sylvaticus</i> | 15 |
| Bird | Piping Plover | <i>Charadrius melodus</i> | 43 |
| | Henslow's Sparrow | <i>Ammodramus henslowii</i> | 33 |
| | Sprague's Pipit | <i>Anthus spragueii</i> | 33 |
| | Bachman's Sparrow | <i>Peucaea aestivalis</i> | 33 |
| | Buff-breasted Sandpiper | <i>Calidris subruficollis</i> | 29 |
| | Rusty Blackbird | <i>Euphagus carolinus</i> | 29 |
| | Bewick's Wren | <i>Thryomanes bewickii</i> | 29 |
| | Ruddy Turnstone | <i>Arenaria interpres</i> | 24 |
| | Smith's Longspur | <i>Calcarius pictus</i> | 24 |
| | Common Nighthawk | <i>Chordeiles minor</i> | 24 |
| | Migrant Loggerhead Shrike | <i>Lanius ludovicianus</i> | 24 |
| | Yellow-crowned Night-Heron | <i>Nyctanassa violacea</i> | 24 |
| | Black-bellied Plover | <i>Pluvialis squatarola</i> | 24 |
| | American Woodcock | <i>Scolopax minor</i> | 24 |
| | Cerulean Warbler | <i>Setophaga cerulea</i> | 24 |
| | American Bittern | <i>Botaurus lentiginosus</i> | 23 |
| | Willow Flycatcher | <i>Empidonax traillii</i> | 23 |
| | Purple Gallinule | <i>Porphyrio martinicus</i> | 23 |
| | Le Conte's Sparrow | <i>Ammodramus leconteii</i> | 21 |
| | Sedge Wren | <i>Cistothorus platensis</i> | 21 |
| | Sharp-shinned Hawk | <i>Accipiter striatus</i> | 19 |
| | Grasshopper Sparrow | <i>Ammodramus savannarum</i> | 19 |
| | American Black Duck | <i>Anas rubripes</i> | 19 |
| | Anhinga | <i>Anhinga anhinga</i> | 19 |
| | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | 19 |
| | Sanderling | <i>Calidris alba</i> | 19 |
| | Dunlin | <i>Calidris alpina</i> | 19 |
| | Stilt Sandpiper | <i>Calidris himantopus</i> | 19 |
| | Chimney Swift | <i>Chaetura pelagica</i> | 19 |
| | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | 19 |
| | Northern Bobwhite | <i>Colinus virginianus</i> | 19 |
| | Tricolored Heron | <i>Egretta tricolor</i> | 19 |
| | American Kestrel | <i>Falco sparverius</i> | 19 |
| | Purple Finch | <i>Haemorhous purpureus</i> | 19 |
| | Wood Thrush | <i>Hylocichla mustelina</i> | 19 |
| | Least Bittern | <i>Ixobrychus exilis</i> | 19 |
| | Short-billed Dowitcher | <i>Limnodromus griseus</i> | 19 |
| | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | 19 |

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|----------|-------------------------------|--|----|
| | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | 19 |
| | Bell's Vireo | <i>Vireo bellii</i> | 19 |
| | Trumpeter Swan | <i>Cygnus buccinator</i> | 17 |
| | American Golden-Plover | <i>Pluvialis dominica</i> | 15 |
| Crayfish | Benton County Cave Crayfish | <i>Cambarus aculabrum</i> | 80 |
| | Hell Creek Cave Crayfish | <i>Cambarus zophonastes</i> | 80 |
| | Coldwater Crayfish | <i>Orconectes eupunctus</i> | 50 |
| | Mammoth Spring Crayfish | <i>Orconectes marchandi</i> | 46 |
| | Bristly Cave Crayfish | <i>Cambarus setosus</i> | 34 |
| | Williams' Crayfish | <i>Orconectes williamsi</i> | 34 |
| | Meek's Short Pointed Crayfish | <i>Orconectes meeki brevis</i> | 30 |
| | Hubbs' Crayfish | <i>Cambarus hubbsi</i> | 27 |
| | Midget Crayfish | <i>Orconectes nana</i> | 27 |
| | Neosho Midget Crayfish | <i>Orconectes macrus</i> | 23 |
| | Gapped Ringed Crayfish | <i>Orconectes neglectus chaenodactylus</i> | 20 |
| Fish | Ozark Cavefish | <i>Troglichthys rosae</i> | 43 |
| | Crystal Darter | <i>Crystallaria asprella</i> | 38 |
| | Arkansas Darter | <i>Etheostoma cragini</i> | 38 |
| | Stargazing Darter | <i>Percina uranidea</i> | 38 |
| | Western Sand Darter | <i>Ammocrypta clara</i> | 33 |
| | Ozark Shiner | <i>Notropis ozarcanus</i> | 33 |
| | Strawberry River Darter | <i>Etheostoma fragi</i> | 29 |
| | Least Darter | <i>Etheostoma microperca</i> | 29 |
| | Silver Redhorse | <i>Moxostoma anisurum</i> | 29 |
| | Longnose Darter | <i>Percina nasuta</i> | 27 |
| | Southern Cavefish | <i>Typhlichthys subterraneus</i> | 27 |
| | American Eel | <i>Anguilla rostrata</i> | 24 |
| | Paddlefish | <i>Polyodon spathula</i> | 24 |
| | Blue Sucker | <i>Cycleptus elongatus</i> | 23 |
| | Bluntnose Shiner | <i>Cyprinella camura</i> | 23 |
| | Spotfin Shiner | <i>Cyprinella spiloptera</i> | 23 |
| | Sabine Shiner | <i>Notropis sabiniae</i> | 23 |
| | Autumn Darter | <i>Etheostoma autumnale</i> | 19 |
| | Sunburst Darter | <i>Etheostoma mihileze</i> | 19 |
| | Current Darter | <i>Etheostoma uniporum</i> | 19 |
| | Mooneye | <i>Hiodon tergisus</i> | 19 |
| | American Brook Lamprey | <i>Lethenteron appendix</i> | 19 |
| | Pealip Redhorse | <i>Moxostoma pisolabrum</i> | 19 |
| | Striped Mullet | <i>Mugil cephalus</i> | 19 |
| | Redspot Chub | <i>Nocomis asper</i> | 19 |
| | Channel Shiner | <i>Notropis wickliffi</i> | 19 |
| | Gilt Darter | <i>Percina evides</i> | 19 |
| | Slenderhead Darter | <i>Percina phoxocephala</i> | 19 |
| | Highfin Carpsucker | <i>Carpionodes velifer</i> | 17 |

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|--------|-------------------------------|-----------------------------------|----|
| | Lake Chubsucker | <i>Erimyzon sucetta</i> | 15 |
| | Highland Darter | <i>Etheostoma teddyroosevelt</i> | 15 |
| | Least Brook Lamprey | <i>Lampetra aepyptera</i> | 15 |
| | Shoal Chub | <i>Macrhybopsis hyostoma</i> | 15 |
| | Saddleback Darter | <i>Percina vigil</i> | 15 |
| Insect | Winter Stonefly | <i>Allocaonia warreni</i> | 80 |
| | Sulphur Springs Diving Beetle | <i>Heterosternuta sulphuria</i> | 80 |
| | Ground Beetle | <i>Rhadine ozarkensis</i> | 80 |
| | Arkansas Agapetus Caddisfly | <i>Agapetus medicus</i> | 50 |
| | Winter Stonefly | <i>Allocaonia jeanae</i> | 50 |
| | Contorted Ochrotrichian | <i>Ochrotrichia contorta</i> | 50 |
| | Predaceous Diving Beetle | <i>Heterosternuta phoebeae</i> | 46 |
| | American Burying Beetle | <i>Nicrophorus americanus</i> | 42 |
| | Linda's Roadside-Skipper | <i>Amblyscirtes linda</i> | 38 |
| | Swamp Metalmark | <i>Calephelis muticum</i> | 34 |
| | Ozark Emerald | <i>Somatochlora ozarkensis</i> | 34 |
| | Prairie Mole Cricket | <i>Gryllotalpa major</i> | 32 |
| | Ozark Snaketail Dragonfly | <i>Ophiogomphus westfalli</i> | 32 |
| | Giant Prairie Robberfly | <i>Microstylum morosum</i> | 30 |
| | Ozark Swallowtail | <i>Papilio joanae</i> | 30 |
| | Mottled Duskywing | <i>Erynnis martialis</i> | 29 |
| | Meske's Skipper | <i>Hesperia meskei</i> | 29 |
| | Lace-winged Roadside-Skipper | <i>Amblyscirtes aesculapius</i> | 27 |
| | Appalachian Azure | <i>Celastrina neglectamajor</i> | 27 |
| | Baltimore Checkerspot | <i>Euphydryas phaeton ozarkae</i> | 27 |
| | Giant Stag Beetle | <i>Lucanus elaphus</i> | 25 |
| | Diana | <i>Speyeria diana</i> | 25 |
| | Lace Bug | <i>Acalypta susanae</i> | 23 |
| | Northern Metalmark | <i>Calephelis borealis</i> | 23 |
| | Dusky Azure | <i>Celastrina nigra</i> | 23 |
| | Outis Skipper | <i>Cogia outis</i> | 23 |
| | Beetle | <i>Derops divalis</i> | 23 |
| | Yehl Skipper | <i>Poanes yehl</i> | 23 |
| | Byssus Skipper | <i>Problema byssus</i> | 23 |
| | Ozark Pseudactium | <i>Pseudactium ursum</i> | 23 |
| | Bell's Roadside-Skipper | <i>Amblyscirtes belli</i> | 21 |
| | Golden-banded Skipper | <i>Autochton cellus</i> | 21 |
| | Scrubland Tiger Beetle | <i>Cicindela obsoleta</i> | 21 |
| | Leonard's Skipper | <i>Hesperia leonardus</i> | 19 |
| | Cobweb Skipper | <i>Hesperia metea</i> | 19 |
| | Ouachita Diving Beetle | <i>Heterosternuta ouachita</i> | 19 |
| | Small-eyed Mold Beetle | <i>Ouachitychus parvocolus</i> | 19 |
| | Gray Comma | <i>Polygonia progne</i> | 19 |
| | Oak Hairstreak | <i>Satyrium favonius ontario</i> | 19 |
| | Gorgone Checkerspot | <i>Chlosyne gorgone</i> | 15 |

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|----------------------|------------------------------|---------------------------------------|----|
| | Cow Path Tiger Beetle | <i>Cicindela purpurea</i> | 15 |
| | Monarch | <i>Danaus plexippus</i> | 15 |
| | Twelve-spotted Tiger Beetle | <i>Cicindela duodecimguttata</i> | 13 |
| Invertebrate - other | Foushee Cavesnail | <i>Ammicola cora</i> | 80 |
| | Isopod | <i>Lirceus bidentatus</i> | 80 |
| | Ozark Pyrg | <i>Marstonia ozarkensis</i> | 80 |
| | Thicklipped Pebblesnail | <i>Somatogyus crassilabris</i> | 80 |
| | Cave Obligate Pseudoscorpion | <i>Apoththonius titanicus</i> | 65 |
| | Cave Obligate Harvestman | <i>Crosbyella distincta</i> | 65 |
| | Cave Obligate Harvestman | <i>Crosbyella roeweri</i> | 65 |
| | Calico Rock Oval | <i>Patera clenchi</i> | 65 |
| | Cave Obligate Millipede | <i>Trigenotyia parca</i> | 65 |
| | Arkansas Wedge | <i>Xolotrema occidentale</i> | 65 |
| | Cave Obligate Springtail | <i>Schaefferia alabamensis</i> | 50 |
| | Amphipod | <i>Baetiscus pseudomucronatus</i> | 42 |
| | Cave Obligate Planarian | <i>Dendrocoelopsis americana</i> | 42 |
| | Isopod | <i>Caecidotea dimorpha</i> | 38 |
| | Bat Cave Isopod | <i>Caecidotea macropropoda</i> | 38 |
| | White Liptooth | <i>Daedalochila peregrina</i> | 34 |
| | Isopod | <i>Caecidotea steevesi</i> | 30 |
| | Isopod | <i>Lirceus bicuspidatus</i> | 30 |
| | Isopod | <i>Caecidotea ancyla</i> | 27 |
| | Isopod | <i>Caecidotea salemensis</i> | 27 |
| | Land Snail | <i>Gastrocopta rogersensis</i> | 27 |
| | Shelled Cave Springtail | <i>Pseudosinella testa</i> | 27 |
| | Springtail | <i>Pygmarrhopalites clarus</i> | 25 |
| | Isopod | <i>Caecidotea stiladactyla</i> | 23 |
| | Ozark Cave Amphipod | <i>Stygobromus ozarkensis</i> | 23 |
| | Pseudoscorpion | <i>Tartarocreagris ozarkensis</i> | 23 |
| Mammal | Ozark Big-eared Bat | <i>Corynorhinus townsendii ingens</i> | 80 |
| | Northern Long-eared Bat | <i>Myotis septentrionalis</i> | 63 |
| | Indiana Bat | <i>Myotis sodalis</i> | 62 |
| | Ozark Pocket Gopher | <i>Geomys bursarius ozarkensis</i> | 57 |
| | Eastern Small-Footed Bat | <i>Myotis leibii</i> | 34 |
| | Little Brown Bat | <i>Myotis lucifugus</i> | 33 |
| | Rafinesque's Big-Eared Bat | <i>Corynorhinus rafinesquii</i> | 29 |
| | Southeastern Bat | <i>Myotis austroriparius</i> | 24 |
| | Plains Harvest Mouse | <i>Reithrodontomys montanus</i> | 23 |
| | Black-tailed Jackrabbit | <i>Lepus californicus</i> | 21 |
| | Eastern Spotted Skunk | <i>Spilogale putorius</i> | 21 |
| | Crawford's Gray Shrew | <i>Notiosorex crawfordi</i> | 19 |
| | Eastern Harvest Mouse | <i>Reithrodontomys humulis</i> | 19 |
| | Southeastern Shrew | <i>Sorex longirostris</i> | 19 |

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|---------|----------------------------|---------------------------------------|-----|
| | Gray Bat | <i>Myotis grisescens</i> | 16 |
| | American Badger | <i>Taxidea taxus</i> | 16 |
| | Long-tailed Weasel | <i>Mustela frenata</i> | 15 |
| | Western Harvest Mouse | <i>Reithrodontomys megalotis</i> | 15 |
| Mussel | Curtis Pearlymussel | <i>Epioblasma florentina curtisii</i> | 100 |
| | Turgid Blossom | <i>Epioblasma turgidula</i> | 100 |
| | Scaleshell | <i>Leptodea leptodon</i> | 76 |
| | Neosho Mucket | <i>Lampsilis rafinesqueana</i> | 62 |
| | Rabbitsfoot | <i>Quadrula cylindrica cylindrica</i> | 52 |
| | Pink Mucket | <i>Lampsilis abrupta</i> | 46 |
| | Western Fanshell | <i>Cyprogenia aberti</i> | 43 |
| | Snuffbox | <i>Epioblasma triquetra</i> | 43 |
| | Pyramid Pigtoe | <i>Pleurobema rubrum</i> | 38 |
| | Salamander Mussel | <i>Simpsonaias ambigua</i> | 34 |
| | Purple Lilliput | <i>Toxolasma lividum</i> | 33 |
| | Slippershell Mussel | <i>Alasmidonta viridis</i> | 31 |
| | "Elongate" Pigtoe | <i>Fusconaia sp. cf. flava</i> | 29 |
| | Ozark Pigtoe | <i>Fusconaia ozarkensis</i> | 23 |
| | Ouachita Kidneyshell | <i>Ptychobranhus occidentalis</i> | 23 |
| | Ellipse | <i>Venustaconcha ellipsiformis</i> | 23 |
| | Bleedingtooth Mussel | <i>Venustaconcha pleasii</i> | 23 |
| | Elktoe | <i>Alasmidonta marginata</i> | 19 |
| | Hickorynut | <i>Obovaria olivaria</i> | 19 |
| | "White" Hickorynut | <i>Obovaria sp. cf. arkansasensis</i> | 19 |
| | Ohio Pigtoe | <i>Pleurobema cordatum</i> | 19 |
| | Lilliput | <i>Toxolasma parvum</i> | 19 |
| | Round Pigtoe | <i>Pleurobema sintoxia</i> | 17 |
| | Little Spectaclecase group | <i>Villosa sp. cf. lienosa</i> | 17 |
| | Rainbow | <i>Villosa iris</i> | 15 |
| Reptile | Collared Lizard | <i>Crotaphytus collaris</i> | 24 |
| | Great Plains Skink | <i>Plestiodon obsoletus</i> | 23 |
| | Ground Snake | <i>Sonora semiannulata</i> | 23 |
| | Lined Snake | <i>Tropidoconion lineatum</i> | 23 |
| | Ornate Box Turtle | <i>Terrapene ornata</i> | 19 |
| | Slender Glass Lizard | <i>Ophisaurus attenuatus</i> | 15 |

Table 3.3. All species of greatest conservation need (SGCN) in the Ozark Highlands ranked by priority score. A higher priority score indicates a greater need for actions to conserve the species. Of the 377 SGCN, 218 occur in this ecoregion.

| Priority Score | Common Name | Scientific Name | Taxa Association |
|----------------|-------------------------------|---|------------------|
| 100 | Curtis Pearlymussel | <i>Epioblasma florentina curtisii</i> | Mussel |
| 100 | Turgid Blossom | <i>Epioblasma turgidula</i> | Mussel |
| 80 | Winter Stonefly | <i>Allocapnia warreni</i> | Insect |
| 80 | Foushee Cavesnail | <i>Amnicola cora</i> | Invertebrate - |
| 80 | Benton County Cave Crayfish | <i>Cambarus aculabrum</i> | Crayfish |
| 80 | Hell Creek Cave Crayfish | <i>Cambarus zophonastes</i> | Crayfish |
| 80 | Ozark Big-eared Bat | <i>Corynorhinus townsendii ingens</i> | Mammal |
| 80 | Sulphur Springs Diving Beetle | <i>Heterosternuta sulphuria</i> | Insect |
| 80 | Isopod | <i>Lirceus bidentatus</i> | Invertebrate - |
| 80 | Ozark Pyrg | <i>Marstonia ozarkensis</i> | Invertebrate - |
| 80 | Ground Beetle | <i>Rhadine ozarkensis</i> | Insect |
| 80 | Thicklipped Pebblesnail | <i>Somatogyrus crassilabris</i> | Invertebrate - |
| 76 | Scaleshell | <i>Leptodea leptodon</i> | Mussel |
| 71 | Ozark Hellbender | <i>Cryptobranchus alleganiensis bishopi</i> | Amphibian |
| 65 | Cave Obligate Pseudoscorpion | <i>Apochthonius titanicus</i> | Invertebrate - |
| 65 | Cave Obligate Harvestman | <i>Crosbyella distincta</i> | Invertebrate - |
| 65 | Cave Obligate Harvestman | <i>Crosbyella roeweri</i> | Invertebrate - |
| 65 | Calico Rock Oval | <i>Patera clenchi</i> | Invertebrate - |
| 65 | Cave Obligate Millipede | <i>Trigenotyia parca</i> | Invertebrate - |
| 65 | Arkansas Wedge | <i>Xolotrema occidentale</i> | Invertebrate - |
| 63 | Northern Long-eared Bat | <i>Myotis septentrionalis</i> | Mammal |
| 62 | Neosho Mucket | <i>Lampsilis rafinesqueana</i> | Mussel |
| 62 | Indiana Bat | <i>Myotis sodalis</i> | Mammal |
| 57 | Ozark Pocket Gopher | <i>Geomys bursarius ozarkensis</i> | Mammal |
| 52 | Rabbitsfoot | <i>Quadrula cylindrica cylindrica</i> | Mussel |
| 50 | Arkansas Agapetus Caddisfly | <i>Agapetus medicus</i> | Insect |
| 50 | Winter Stonefly | <i>Allocapnia jeanae</i> | Insect |
| 50 | Contorted Ochrotrichian | <i>Ochrotrichia contorta</i> | Insect |
| 50 | Coldwater Crayfish | <i>Orconectes eupunctus</i> | Crayfish |
| 50 | Cave Obligate Springtail | <i>Schaefferia alabamensis</i> | Invertebrate - |
| 46 | Predaceous Diving Beetle | <i>Heterosternuta phoebeae</i> | Insect |
| 46 | Pink Mucket | <i>Lampsilis abrupta</i> | Mussel |
| 46 | Mammoth Spring Crayfish | <i>Orconectes marchandi</i> | Crayfish |
| 43 | Piping Plover | <i>Charadrius melodus</i> | Bird |
| 43 | Western Fanshell | <i>Cyprogenia aberti</i> | Mussel |
| 43 | Snuffbox | <i>Epioblasma triquetra</i> | Mussel |

| | | | |
|----|-------------------------------|----------------------------------|----------------|
| 43 | Ozark Cavefish | <i>Troglichthys rosae</i> | Fish |
| 42 | Amphipod | <i>Baetrus pseudomucronatus</i> | Invertebrate - |
| 42 | Cave Obligate Planarian | <i>Dendrocoelopsis americana</i> | Invertebrate - |
| 42 | American Burying Beetle | <i>Nicrophorus americanus</i> | Insect |
| 38 | Linda's Roadside-Skipper | <i>Amblyscirtes linda</i> | Insect |
| 38 | Isopod | <i>Caecidotea dimorpha</i> | Invertebrate - |
| 38 | Bat Cave Isopod | <i>Caecidotea macropropoda</i> | Invertebrate - |
| 38 | Crystal Darter | <i>Crystallaria asprella</i> | Fish |
| 38 | Arkansas Darter | <i>Etheostoma cragini</i> | Fish |
| 38 | Stargazing Darter | <i>Percina uranidea</i> | Fish |
| 38 | Pyramid Pigtoe | <i>Pleurobema rubrum</i> | Mussel |
| 34 | Swamp Metalmark | <i>Calephelis muticum</i> | Insect |
| 34 | Bristly Cave Crayfish | <i>Cambarus setosus</i> | Crayfish |
| 34 | White Liptooth | <i>Daedalochila peregrina</i> | Invertebrate - |
| 34 | Williams' Crayfish | <i>Orconectes williamsi</i> | Crayfish |
| 34 | Salamander Mussel | <i>Simpsonaias ambigua</i> | Mussel |
| 34 | Ozark Emerald | <i>Somatochlora ozarkensis</i> | Insect |
| 33 | Western Sand Darter | <i>Ammocrypta clara</i> | Fish |
| 33 | Henslow's Sparrow | <i>Ammodramus henslowii</i> | Bird |
| 33 | Sprague's Pipit | <i>Anthus spragueii</i> | Bird |
| 33 | Little Brown Bat | <i>Myotis lucifugus</i> | Mammal |
| 33 | Ozark Shiner | <i>Notropis ozarcanus</i> | Fish |
| 33 | Bachman's Sparrow | <i>Peucaea aestivalis</i> | Bird |
| 33 | Purple Lilliput | <i>Toxolasma lividum</i> | Mussel |
| 32 | Prairie Mole Cricket | <i>Gryllotalpa major</i> | Insect |
| 32 | Ozark Snaketail Dragonfly | <i>Ophiogomphus westfalli</i> | Insect |
| 31 | Slippershell Mussel | <i>Alasmidonta viridis</i> | Mussel |
| 30 | Isopod | <i>Caecidotea steevesi</i> | Invertebrate - |
| 30 | Isopod | <i>Lirceus bicuspidatus</i> | Invertebrate - |
| 30 | Giant Prairie Robberfly | <i>Microstylum morosum</i> | Insect |
| 30 | Meek's Short Pointed Crayfish | <i>Orconectes meeki brevis</i> | Crayfish |
| 30 | Ozark Swallowtail | <i>Papilio joanae</i> | Insect |
| 29 | Buff-breasted Sandpiper | <i>Calidris subruficollis</i> | Bird |
| 29 | Rafinesque's Big-Eared Bat | <i>Corynorhinus rafinesquii</i> | Mammal |
| 29 | Mottled Duskywing | <i>Erynnis martialis</i> | Insect |
| 29 | Strawberry River Darter | <i>Etheostoma fragi</i> | Fish |
| 29 | Least Darter | <i>Etheostoma microperca</i> | Fish |
| 29 | Rusty Blackbird | <i>Euphagus carolinus</i> | Bird |
| 29 | "Elongate" Pigtoe | <i>Fusconaia sp. cf. flava</i> | Mussel |
| 29 | Meske's Skipper | <i>Hesperia meskei</i> | Insect |
| 29 | Silver Redhorse | <i>Moxostoma anisurum</i> | Fish |
| 29 | Bewick's Wren | <i>Thryomanes bewickii</i> | Bird |
| 27 | Lace-winged Roadside-Skipper | <i>Amblyscirtes aesculapius</i> | Insect |
| 27 | Isopod | <i>Caecidotea ancyla</i> | Invertebrate - |

| | | | |
|----|----------------------------|-----------------------------------|----------------|
| 27 | Isopod | <i>Caecidotea salemensis</i> | Invertebrate - |
| 27 | Hubbs' Crayfish | <i>Cambarus hubbsi</i> | Crayfish |
| 27 | Appalachian Azure | <i>Celastrina neglectamajor</i> | Insect |
| 27 | Baltimore Checkerspot | <i>Euphydryas phaeton ozarkae</i> | Insect |
| 27 | Land Snail | <i>Gastrocopta rogersensis</i> | Invertebrate - |
| 27 | Eastern Small-Footed Bat | <i>Myotis leibii</i> | Mammal |
| 27 | Midget Crayfish | <i>Orconectes nana</i> | Crayfish |
| 27 | Longnose Darter | <i>Percina nasuta</i> | Fish |
| 27 | Shelled Cave Springtail | <i>Pseudosinella testa</i> | Invertebrate - |
| 27 | Southern Cavefish | <i>Typhlichthys subterraneus</i> | Fish |
| 25 | Giant Stag Beetle | <i>Lucanus elaphus</i> | Insect |
| 25 | Springtail | <i>Pygmarhopalites clarus</i> | Invertebrate - |
| 25 | Diana | <i>Speyeria diana</i> | Insect |
| 24 | American Eel | <i>Anguilla rostrata</i> | Fish |
| 24 | Ruddy Turnstone | <i>Arenaria interpres</i> | Bird |
| 24 | Smith's Longspur | <i>Calcarius pictus</i> | Bird |
| 24 | Common Nighthawk | <i>Chordeiles minor</i> | Bird |
| 24 | Eastern Collared Lizard | <i>Crotaphytus collaris</i> | Reptile |
| 24 | Migrant Loggerhead Shrike | <i>Lanius ludovicianus</i> | Bird |
| 24 | Southeastern Bat | <i>Myotis austroriparius</i> | Mammal |
| 24 | Yellow-crowned Night-Heron | <i>Nyctanassa violacea</i> | Bird |
| 24 | Black-bellied Plover | <i>Pluvialis squatarola</i> | Bird |
| 24 | Paddlefish | <i>Polyodon spathula</i> | Fish |
| 24 | American Woodcock | <i>Scolopax minor</i> | Bird |
| 24 | Cerulean Warbler | <i>Setophaga cerulea</i> | Bird |
| 23 | Lace Bug | <i>Acalypta susanae</i> | Insect |
| 23 | American Bittern | <i>Botaurus lentiginosus</i> | Bird |
| 23 | Isopod | <i>Caecidotea stiladactyla</i> | Invertebrate - |
| 23 | Northern Metalmark | <i>Calephelis borealis</i> | Insect |
| 23 | Dusky Azure | <i>Celastrina nigra</i> | Insect |
| 23 | Outis Skipper | <i>Cogia outis</i> | Insect |
| 23 | Blue Sucker | <i>Cycleptus elongatus</i> | Fish |
| 23 | Bluntnose Shiner | <i>Cyprinella camura</i> | Fish |
| 23 | Spotfin Shiner | <i>Cyprinella spiloptera</i> | Fish |
| 23 | Beetle | <i>Derops divalis</i> | Insect |
| 23 | Willow Flycatcher | <i>Empidonax traillii</i> | Bird |
| 23 | Oklahoma Salamander | <i>Eurycea tynerensis</i> | Amphibian |
| 23 | Ozark Pigtoe | <i>Fusconaia ozarkensis</i> | Mussel |
| 23 | Crawfish Frog | <i>Lithobates areolatus</i> | Amphibian |
| 23 | Sabine Shiner | <i>Notropis sabinae</i> | Fish |
| 23 | Neosho Midget Crayfish | <i>Orconectes macrus</i> | Crayfish |
| 23 | Great Plains Skink | <i>Plestiodon obsoletus</i> | Reptile |
| 23 | Yehl Skipper | <i>Poanes yehl</i> | Insect |
| 23 | Purple Gallinule | <i>Porphyrio martinicus</i> | Bird |

| | | | |
|----|-----------------------------|------------------------------------|----------------|
| 23 | Byssus Skipper | <i>Problema byssus</i> | Insect |
| 23 | Ozark Pseudactium | <i>Pseudactium ursum</i> | Insect |
| 23 | Ouachita Kidneyshell | <i>Ptychobranthus occidentalis</i> | Mussel |
| 23 | Plains Harvest Mouse | <i>Reithrodontomys montanus</i> | Mammal |
| 23 | Western Groundsnake | <i>Sonora semiannulata</i> | Reptile |
| 23 | Ozark Cave Amphipod | <i>Stygobromus ozarkensis</i> | Invertebrate - |
| 23 | Pseudoscorpion | <i>Tartarocreagris ozarkensis</i> | Invertebrate - |
| 23 | Lined Snake | <i>Tropidoclonion lineatum</i> | Reptile |
| 23 | Ellipse | <i>Venustaconcha ellipsiformis</i> | Mussel |
| 23 | Bleedingtooth Mussel | <i>Venustaconcha pleasii</i> | Mussel |
| 21 | Le Conte's Sparrow | <i>Ammodramus leconteii</i> | Bird |
| 21 | Bell's Roadside-Skipper | <i>Amblyscirtes belli</i> | Insect |
| 21 | Golden-banded Skipper | <i>Autochton cellus</i> | Insect |
| 21 | Scrubland Tiger Beetle | <i>Cicindela obsoleta</i> | Insect |
| 21 | Sedge Wren | <i>Cistothorus platensis</i> | Bird |
| 21 | Black-tailed Jackrabbit | <i>Lepus californicus</i> | Mammal |
| 21 | Eastern Spotted Skunk | <i>Spilogale putorius</i> | Mammal |
| 20 | Gapped Ringed Crayfish | <i>Orconectes neglectus</i> | Crayfish |
| 19 | Sharp-shinned Hawk | <i>Accipiter striatus</i> | Bird |
| 19 | Elktoe | <i>Alasmidonta marginata</i> | Mussel |
| 19 | Ringed Salamander | <i>Ambystoma annulatum</i> | Amphibian |
| 19 | Grasshopper Sparrow | <i>Ammodramus savannarum</i> | Bird |
| 19 | American Black Duck | <i>Anas rubripes</i> | Bird |
| 19 | Anhinga | <i>Anhinga anhinga</i> | Bird |
| 19 | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | Bird |
| 19 | Sanderling | <i>Calidris alba</i> | Bird |
| 19 | Dunlin | <i>Calidris alpina</i> | Bird |
| 19 | Stilt Sandpiper | <i>Calidris himantopus</i> | Bird |
| 19 | Chimney Swift | <i>Chaetura pelagica</i> | Bird |
| 19 | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | Bird |
| 19 | Northern Bobwhite | <i>Colinus virginianus</i> | Bird |
| 19 | Tricolored Heron | <i>Egretta tricolor</i> | Bird |
| 19 | Autumn Darter | <i>Etheostoma autumnale</i> | Fish |
| 19 | Sunburst Darter | <i>Etheostoma mihileze</i> | Fish |
| 19 | Current Darter | <i>Etheostoma uniporum</i> | Fish |
| 19 | Grotto Salamander "northern | <i>Eurycea spelaea northern</i> | Amphibian |
| 19 | Grotto Salamander "western | <i>Eurycea spelaea western</i> | Amphibian |
| 19 | American Kestrel | <i>Falco sparverius</i> | Bird |
| 19 | Common Gallinule | <i>Gallinula galeata</i> | Bird |
| 19 | Purple Finch | <i>Haemorhous purpureus</i> | Bird |
| 19 | Leonard's Skipper | <i>Hesperia leonardus</i> | Insect |
| 19 | Cobweb Skipper | <i>Hesperia metea</i> | Insect |
| 19 | Ouachita Diving Beetle | <i>Heterosternuta ouachita</i> | Insect |
| 19 | Mooneye | <i>Hiodon tergisus</i> | Fish |

| | | | |
|----|----------------------------|--------------------------------------|-----------|
| 19 | Wood Thrush | <i>Hylocichla mustelina</i> | Bird |
| 19 | Least Bittern | <i>Ixobrychus exilis</i> | Bird |
| 19 | American Brook Lamprey | <i>Lethenteron appendix</i> | Fish |
| 19 | Short-billed Dowitcher | <i>Limnodromus griseus</i> | Bird |
| 19 | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | Bird |
| 19 | Pealip Redhorse | <i>Moxostoma pisolabrum</i> | Fish |
| 19 | Striped Mullet | <i>Mugil cephalus</i> | Fish |
| 19 | Redspot Chub | <i>Nocomis asper</i> | Fish |
| 19 | Crawford's Gray Shrew | <i>Notiosorex crawfordi</i> | Mammal |
| 19 | Channel Shiner | <i>Notropis wickliffi</i> | Fish |
| 19 | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | Bird |
| 19 | Hickorynut | <i>Obovaria olivaria</i> | Mussel |
| 19 | "White" Hickorynut | <i>Obovaria sp. cf arkansasensis</i> | Mussel |
| 19 | Small-eyed Mold Beetle | <i>Ouachitychus parvocolus</i> | Insect |
| 19 | Gilt Darter | <i>Percina evides</i> | Fish |
| 19 | Slenderhead Darter | <i>Percina phoxocephala</i> | Fish |
| 19 | Ohio Pigtoe | <i>Pleurobema cordatum</i> | Mussel |
| 19 | Gray Comma | <i>Polygonia progne</i> | Insect |
| 19 | Boreal Chorus Frog | <i>Pseudacris maculata</i> | Amphibian |
| 19 | Eastern Harvest Mouse | <i>Reithrodontomys humulis</i> | Mammal |
| 19 | Oak Hairstreak | <i>Satyrium favonius ontario</i> | Insect |
| 19 | Eastern Spadefoot | <i>Scaphiopus holbrookii</i> | Amphibian |
| 19 | Hurter's Spadefoot | <i>Scaphiopus hurterii</i> | Amphibian |
| 19 | Southeastern Shrew | <i>Sorex longirostris</i> | Mammal |
| 19 | Ornate Box Turtle | <i>Terrapene ornata</i> | Reptile |
| 19 | Lilliput | <i>Toxolasma parvum</i> | Mussel |
| 19 | Bell's Vireo | <i>Vireo bellii</i> | Bird |
| 17 | Highfin Carpsucker | <i>Carpionodes velifer</i> | Fish |
| 17 | Trumpeter Swan | <i>Cygnus buccinator</i> | Bird |
| 17 | Round Pigtoe | <i>Pleurobema sintoxia</i> | Mussel |
| 17 | Little Spectaclecase group | <i>Villosa sp. cf lienosa</i> | Mussel |
| 16 | Gray Bat | <i>Myotis grisescens</i> | Mammal |
| 16 | American Badger | <i>Taxidea taxus</i> | Mammal |
| 15 | Eastern Tiger Salamander | <i>Ambystoma tigrinum</i> | Amphibian |
| 15 | Gorgone Checkerspot | <i>Chlosyne gorgone</i> | Insect |
| 15 | Cow Path Tiger Beetle | <i>Cicindela purpurea</i> | Insect |
| 15 | Monarch | <i>Danaus plexippus</i> | Insect |
| 15 | Lake Chubsucker | <i>Erimyzon sucetta</i> | Fish |
| 15 | Highland Darter | <i>Etheostoma teddyroosevelt</i> | Fish |
| 15 | Grotto Salamander "eastern | <i>Eurycea spelaea eastern</i> | Amphibian |
| 15 | Least Brook Lamprey | <i>Lampetra aepyptera</i> | Fish |
| 15 | Wood Frog | <i>Lithobates sylvaticus</i> | Amphibian |
| 15 | Shoal Chub | <i>Macrhybopsis hyostoma</i> | Fish |
| 15 | Long-tailed Weasel | <i>Mustela frenata</i> | Mammal |

| | | | |
|----|-----------------------------|----------------------------------|---------|
| 15 | Slender Glass Lizard | <i>Ophisaurus attenuatus</i> | Reptile |
| 15 | Saddleback Darter | <i>Percina vigil</i> | Fish |
| 15 | American Golden-Plover | <i>Pluvialis dominica</i> | Bird |
| 15 | Western Harvest Mouse | <i>Reithrodontomys megalotis</i> | Mammal |
| 15 | Rainbow | <i>Villosa iris</i> | Mussel |
| 13 | Twelve-spotted Tiger Beetle | <i>Cicindela duodecimguttata</i> | Insect |

Habitats that occur in the Ozark Highlands

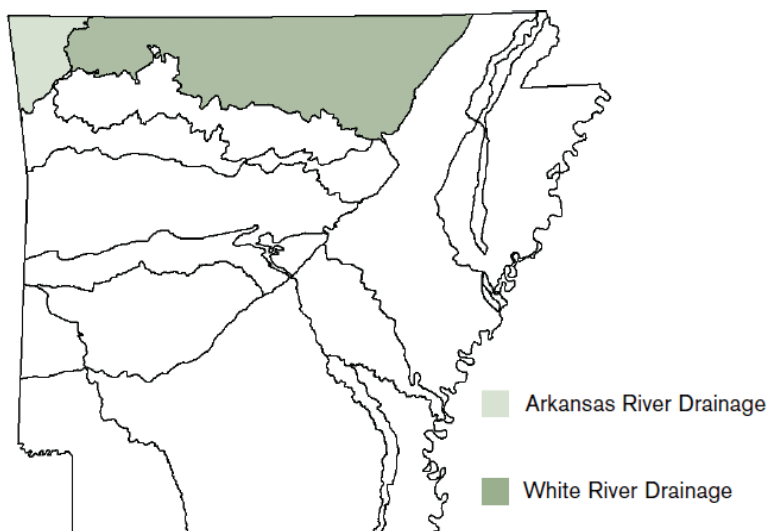
Of the 37 terrestrial habitats in Arkansas, 19 occur in the Ozark Highlands ecoregion (Table 3.4). Of 18 ecobasins in Arkansas, two occur in the Ozark Highlands ecoregion (Figure 3.5). These associations are described in the Section 4. Terrestrial Habitats and Section 5. Aquatic Habitats.

Table 3.4. Terrestrial Habitats in the Ozark Highlands.

Habitat Name

Caves, Mines & Sinkholes, and other Karst Habitat
Crop Land
Cultivated Forest
Herbaceous Wetland
Interior Highlands Calcareous Glade and Barrens
Interior Highlands Dry Acidic Glade and Barrens
Mud Flats
Ozark-Ouachita Cliff and Talus
Ozark-Ouachita Forested Seep
Ozark-Ouachita Dry Oak and Pine Woodland
Ozark-Ouachita Dry-Mesic Oak Forest
Ozark-Ouachita Mesic Hardwood Forest
Ozark-Ouachita Pine-Oak Forest/Woodland
Ozark-Ouachita Prairie and Woodland
Ozark-Ouachita Riparian
Pasture Land
Ponds, Lakes, and Water Holes
Ozark-Ouachita Large Floodplain
Urban/Suburban

Figure 3.5. Ecobasin Distribution in the Ozark Highlands.



Problems faced by Species of Greatest Conservation Need (SGCN)

Taxa association teams listed problems faced by SGCN individually in the Species Reports. A summary of the problems faced by SGCN in the Ozark Highlands is presented below. Each problem has a score which is a sum of all Species Priority Scores associated with species for which this problem was assigned. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species associated with problems listed here.

Table 3.5. Problems faced by SGCN.

| Problem Faced | Score |
|-----------------------------------|-------|
| Urban development | 3875 |
| Grazing/Browsing | 2720 |
| Forestry activities | 1912 |
| Dam | 1880 |
| Agricultural practices | 1878 |
| Road construction | 1800 |
| Confined animal operations | 1596 |
| Resource extraction | 1515 |
| Recreation | 1028 |
| Municipal/Industrial point source | 830 |
| Channel alteration | 734 |
| Fire suppression | 652 |
| Channel maintenance | 508 |
| Parasites/pathogens | 495 |

| | |
|--|-----|
| Water diversion | 447 |
| Conversion of riparian forest | 427 |
| Commercial/industrial development | 403 |
| Exotic species | 402 |
| Non-point source pollution | 196 |
| Predation | 139 |
| Excessive groundwater withdrawal | 112 |
| Excessive non-commercial harvest or collection | 108 |
| Management of/for certain species | 103 |
| Restricted range in Arkansas | 57 |
| Grazing | 57 |
| Interspecific competition | 48 |
| Commercial harvest | 43 |
| Unknown | 33 |

Conservation actions needed in the Ozark Highlands

Descriptions of conservation actions linked to individual species on the list of SGCN are presented in the Species Reports, pages 44-1113. Below are categories of conservation actions recommended by the taxa association teams (Figure 3.6). An explanation of the categories follows in Table 3.6.

The score associated with the conservation action category is the sum of all priority scores associated with species for which a conservation action has been assigned, weighted by the importance of the conservation action category to the species. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species would be affected by actions within this conservation action category.

These scores may be used as guides to directing the apportionment of funding toward conservation actions benefiting habitats and species of greatest conservation need.

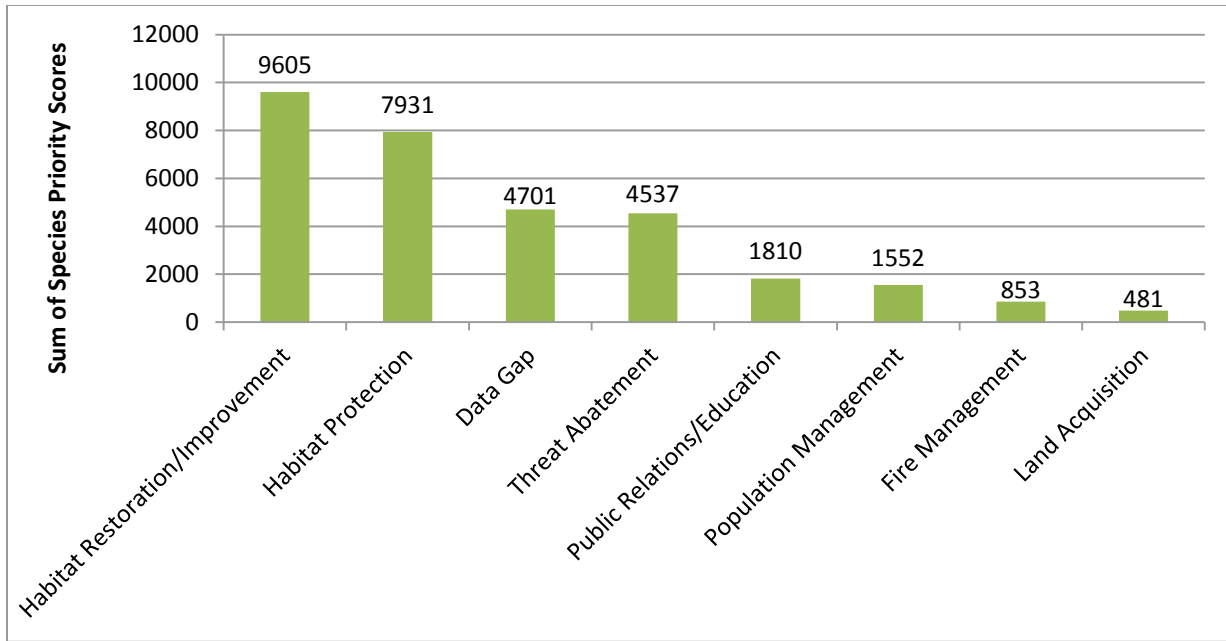


Figure 3.6. Conservation action categories recommended for the Ozark Highlands.

Table 3.6. Conservation action categories explained.

| | |
|---------------------------------|---|
| Habitat Restoration/Improvement | Involves the improvement or restoration of habitat or habitat components |
| Habitat Protection | Involves the protection of existing habitat or habitat components |
| Fire Management | Management of fire regime |
| Land Acquisition | Purchase of land or conservation easements critical to species of concern |
| Population Management | Direct manipulation of populations of species of concern, including restocking, harvest management, and translocation efforts |
| Threat Abatement | Mitigation of an existing threat, such as predation, pollution, or competing species |
| Data Gap | Not enough information is known at this time to formulate conservation |
| Public Relations/Education | Public outreach and education involving species of concern or key habitats |
| Other | Other conservation actions not covered by these categories |

Boston Mountains (Ecoregion 38)

Ecoregion 38 is mountainous, forested and underlain by Pennsylvanian sandstone, shale and siltstone. It is one of the Ozark Plateaus; some folding and faulting has occurred but, in general, strata are much less deformed than in the Ouachita Mountains (36). Maximum elevations are higher, soils have a warmer temperature regime and carbonate rocks are much less extensive than in the Ozark Highlands (39). Physiography is distinct from the Arkansas Valley (37).

Upland soils are mostly Ultisols that developed under oak–hickory and oak–hickory– pine forests. Today, forests are still widespread; northern red oak, southern red oak, white oak and hickories usually dominate the uplands, but shortleaf pine grows on drier, south- and west-facing slopes underlain by sandstone.

Figure 3.7. Boston Mountains ecoregion.

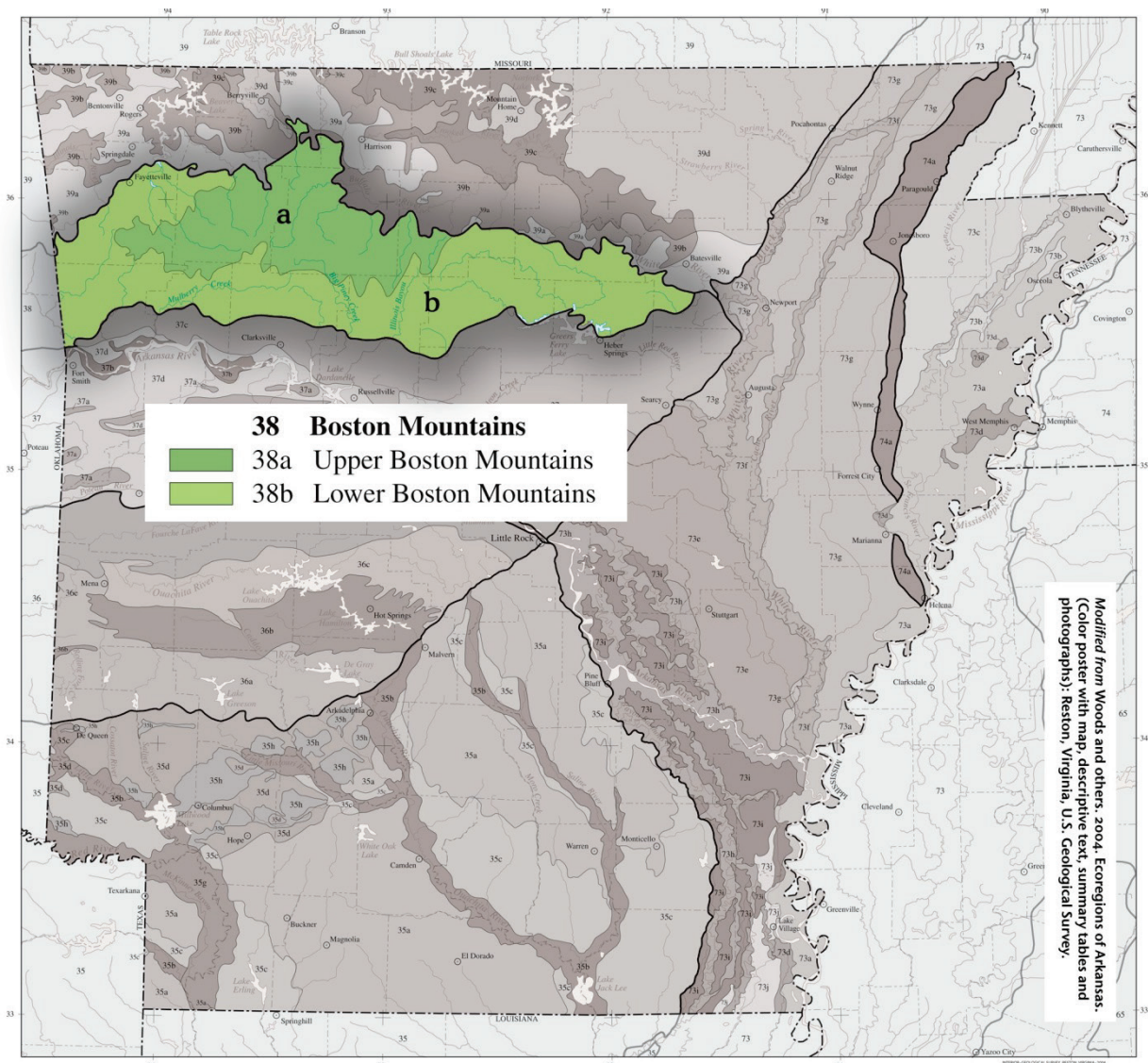




Photo by Tom Foti, AHNC

Upper Boston Mountains

Pastureland or hayland occur on nearly level ridgetops, benches and valley floors. Population density is low; recreation, logging and livestock farming are the primary land uses.

Water quality in streams is generally exceptional; biochemical, nutrient and mineral water quality parameter concentrations all tend to be very low. Fish communities are mostly composed of sensitive species; a diverse, often darter-dominated community occurs along with nearly equal proportions of minnows and sunfishes. During low flows, streams in both Ecoregions 38 and 36 usually run clear but, during high flow conditions, turbidity in Ecoregion 38 tends to be greater than in Ecoregion 36. Summer flow in many small streams is limited or nonexistent but isolated, enduring pools may occur.

Upper Boston Mountains

38a. The Upper Boston Mountains ecoregion is generally higher and more moist than the Lower Boston Mountains (38b); elevations vary from 1,900 to 2,800 feet. Potential natural vegetation is oak–hickory forest. Characteristically, the forests of the Upper Boston Mountains (38a) are more closed and contain far less pine than those of the Lower Boston Mountains (38b). North-facing slopes support mesic forests. Ecoregion 38a is underlain by Pennsylvanian sandstone, shale and siltstone that contrasts with the limestone and dolomite that dominates Ozark Highlands (39).

Water quality in streams reflects geology, soils and land use and is typically exceptional; mineral, nutrient and solid concentrations as well as turbidity all tend to be very low. During the summer, many streams do not flow.

Lower Boston Mountains

38b. The Lower Boston Mountains ecoregion is a mosaic of woodland, forest and savanna that contrasts with the denser, more moist and closed forests of the Upper Boston Mountains (38a). Potential natural vegetation is oak–hickory– pine and oak–hickory forests; pine is much more common than in Ecoregions 38a or 39. Shortleaf pine is especially widespread on drier, south- and west-facing slopes underlain by sandstone. Both precipitation and forest density decrease toward the west, where oak–pine woodland or savanna become common.

Ecoregion 38b is underlain by Pennsylvanian sandstone, shale and siltstone; it is lithologically distinct from the limestone- and dolomite-dominated Ozark Highlands (39).

Overall, water quality is quite similar to Ecoregion 38a, which, although generally higher, has similar lithology and land uses (adapted from Woods and others 2004).

Boston Mountain Ecoregion:

Species of Greatest Conservation Need (SGCN)

Species of greatest conservation need (SGCN) in the Boston Mountains are presented by taxa association (Table 3.7). A higher priority score indicates a greater need for actions to conserve the species. Calculation of the priority score is discussed in Section 2, pages 7-15. A ranked list of all SGCN associated with the ecoregion is presented in Table 3.8.

Table 3.7. SGCN by taxa association in the Boston Mountains.

| Taxa Association | Common Name | Scientific Name | Priority Score |
|------------------|----------------------------|-------------------------------|----------------|
| Amphibian | Oklahoma Salamander | <i>Eurycea tyrnerensis</i> | 23 |
| | Crawfish Frog | <i>Lithobates areolatus</i> | 23 |
| | Ringed Salamander | <i>Ambystoma annulatum</i> | 19 |
| | Four-toed Salamander | <i>Hemidactylium scutatum</i> | 19 |
| | Hurter's Spadefoot | <i>Scaphiopus hurterii</i> | 19 |
| | Wood Frog | <i>Lithobates sylvaticus</i> | 15 |
| Bird | Piping Plover | <i>Charadrius melodus</i> | 43 |
| | Henslow's Sparrow | <i>Ammodramus henslowii</i> | 33 |
| | Bachman's Sparrow | <i>Peucaea aestivalis</i> | 33 |
| | Rusty Blackbird | <i>Euphagus carolinus</i> | 29 |
| | Bewick's Wren | <i>Thryomanes bewickii</i> | 29 |
| | Common Nighthawk | <i>Chordeiles minor</i> | 24 |
| | Migrant Loggerhead Shrike | <i>Lanius ludovicianus</i> | 24 |
| | Yellow-crowned Night-Heron | <i>Nyctanassa violacea</i> | 24 |

| | | | |
|----------|---------------------------|--------------------------------|-----|
| | Black-bellied Plover | <i>Pluvialis squatarola</i> | 24 |
| | American Woodcock | <i>Scolopax minor</i> | 24 |
| | Cerulean Warbler | <i>Setophaga cerulea</i> | 24 |
| | American Bittern | <i>Botaurus lentiginosus</i> | 23 |
| | Willow Flycatcher | <i>Empidonax traillii</i> | 23 |
| | Le Conte's Sparrow | <i>Ammodramus leconteii</i> | 21 |
| | Sedge Wren | <i>Cistothorus platensis</i> | 21 |
| | Sharp-shinned Hawk | <i>Accipiter striatus</i> | 19 |
| | Grasshopper Sparrow | <i>Ammodramus savannarum</i> | 19 |
| | Anhinga | <i>Anhinga anhinga</i> | 19 |
| | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | 19 |
| | Sanderling | <i>Calidris alba</i> | 19 |
| | Dunlin | <i>Calidris alpina</i> | 19 |
| | Stilt Sandpiper | <i>Calidris himantopus</i> | 19 |
| | Chimney Swift | <i>Chaetura pelagica</i> | 19 |
| | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | 19 |
| | Northern Bobwhite | <i>Colinus virginianus</i> | 19 |
| | Tricolored Heron | <i>Egretta tricolor</i> | 19 |
| | American Kestrel | <i>Falco sparverius</i> | 19 |
| | Common Gallinule | <i>Gallinula galeata</i> | 19 |
| | Purple Finch | <i>Haemorhous purpureus</i> | 19 |
| | Wood Thrush | <i>Hylocichla mustelina</i> | 19 |
| | Least Bittern | <i>Ixobrychus exilis</i> | 19 |
| | Short-billed Dowitcher | <i>Limnodromus griseus</i> | 19 |
| | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | 19 |
| | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | 19 |
| | Bell's Vireo | <i>Vireo bellii</i> | 19 |
| | Trumpeter Swan | <i>Cygnus buccinator</i> | 17 |
| | American Golden-Plover | <i>Pluvialis dominica</i> | 15 |
| Crayfish | Boston Mountains Crayfish | <i>Cambarus causeyi</i> | 62 |
| | Williams' Crayfish | <i>Orconectes williamsi</i> | 34 |
| | Hubbs' Crayfish | <i>Cambarus hubbsi</i> | 27 |
| | Midget Crayfish | <i>Orconectes nana</i> | 27 |
| Fish | Yellowcheek Darter | <i>Etheostoma moorei</i> | 100 |
| | Ozark Shiner | <i>Notropis ozarcanus</i> | 33 |
| | Longnose Darter | <i>Percina nasuta</i> | 27 |
| | American Eel | <i>Anguilla rostrata</i> | 24 |
| | Paddlefish | <i>Polyodon spathula</i> | 24 |
| | Bluntnose Shiner | <i>Cyprinella camura</i> | 23 |
| | Brown Bullhead | <i>Ameiurus nebulosus</i> | 19 |
| | Autumn Darter | <i>Etheostoma autumnale</i> | 19 |
| | Sunburst Darter | <i>Etheostoma mihileze</i> | 19 |
| | American Brook Lamprey | <i>Lethenteron appendix</i> | 19 |
| | Gilt Darter | <i>Percina evides</i> | 19 |

| | | | |
|--------|--------------------------------|-----------------------------------|----|
| | Highfin Carpsucker | <i>Carpiodes velifer</i> | 17 |
| | Highland Darter | <i>Etheostoma teddyroosevelt</i> | 15 |
| Insect | Bowed Snowfly | <i>Allocaenia oribata</i> | 80 |
| | Ground Beetle | <i>Rhadine ozarkensis</i> | 80 |
| | Nearctic Paduniellan Caddisfly | <i>Paduniella nearctica</i> | 65 |
| | Winter Stonefly | <i>Allocaenia jeanae</i> | 50 |
| | Winter Stonefly | <i>Allocaenia ozarkana</i> | 50 |
| | Predaceous Diving Beetle | <i>Heterosternuta phoebeae</i> | 46 |
| | Linda's Roadside-Skipper | <i>Amblyscirtes linda</i> | 38 |
| | Swamp Metalmark | <i>Calephelis muticum</i> | 34 |
| | Ozark Emerald | <i>Somatochlora ozarkensis</i> | 34 |
| | Mayfly | <i>Dannella provonshai</i> | 30 |
| | Ozark Swallowtail | <i>Papilio joanae</i> | 30 |
| | Mottled Duskywing | <i>Erynnis martialis</i> | 29 |
| | Lace-winged Roadside-Skipper | <i>Amblyscirtes aesculapius</i> | 27 |
| | Carolina Roadside-Skipper | <i>Amblyscirtes carolina</i> | 27 |
| | Appalachian Azure | <i>Celastrina neglectamajor</i> | 27 |
| | Baltimore Checkerspot | <i>Euphydryas phaeton ozarkae</i> | 27 |
| | Ozark Clubtail Dragonfly | <i>Gomphus ozarkensis</i> | 27 |
| | Tiger Beetle | <i>Cicindela lepida</i> | 25 |
| | Giant Stag Beetle | <i>Lucanus elaphus</i> | 25 |
| | Diana | <i>Speyeria diana</i> | 25 |
| | Northern Metalmark | <i>Calephelis borealis</i> | 23 |
| | Dusky Azure | <i>Celastrina nigra</i> | 23 |
| | Outis Skipper | <i>Cogia outis</i> | 23 |
| | Beetle | <i>Derops divalis</i> | 23 |
| | Yehl Skipper | <i>Poanes yehl</i> | 23 |
| | Byssus Skipper | <i>Problema byssus</i> | 23 |
| | Ozark Pseudactium | <i>Pseudactium ursum</i> | 23 |
| | Ground Beetle | <i>Scaphinotus inflectus</i> | 23 |
| | Bell's Roadside-Skipper | <i>Amblyscirtes belli</i> | 21 |
| | Golden-banded Skipper | <i>Autochton cellus</i> | 21 |
| | Woodland Tiger Beetle | <i>Cicindela unipunctata</i> | 21 |
| | Leonard's Skipper | <i>Hesperia leonardus</i> | 19 |
| | Cobweb Skipper | <i>Hesperia metea</i> | 19 |
| | Ouachita Diving Beetle | <i>Heterosternuta ouachita</i> | 19 |
| | Small-eyed Mold Beetle | <i>Ouachitychus parvocolus</i> | 19 |
| | Gray Comma | <i>Polygonia progne</i> | 19 |
| | Oak Hairstreak | <i>Satyrium favonius ontario</i> | 19 |
| | Beach-dune Tiger Beetle | <i>Cicindela hirticollis</i> | 17 |
| | Sandy Stream Tiger Beetle | <i>Cicindela macra</i> | 17 |
| | Gorgone Checkerspot | <i>Chlosyne gorgone</i> | 15 |
| | Monarch | <i>Danaus plexippus</i> | 15 |
| | Twelve-spotted Tiger Beetle | <i>Cicindela duodecimguttata</i> | 13 |

| | | | |
|--------------------------|------------------------------------|---------------------------------------|--------------------------------|
| Invertebrate - other | Cave Obligate Pseudoscorpion | <i>Apochthonius diabolus</i> | 65 |
| | Cave Obligate Harvestman | <i>Crosbyella distincta</i> | 65 |
| | Cave Obligate Harvestman | <i>Crosbyella roeweri</i> | 65 |
| | Cave Obligate Millipede | <i>Trigenotyia parca</i> | 65 |
| | Springtail | <i>Pseudosinella dubia</i> | 50 |
| | Cave Obligate Springtail | <i>Schaefferia alabamensis</i> | 50 |
| | Isopod | <i>Caecidotea oculata</i> | 42 |
| | Cave Obligate Isopod | <i>Caecidotea simulator</i> | 42 |
| | Cave Obligate Planarian | <i>Dendrocoelopsis americana</i> | 42 |
| | Isopod | <i>Caecidotea dimorpha</i> | 38 |
| | Bat Cave Isopod | <i>Caecidotea macropropoda</i> | 38 |
| | Isopod | <i>Lirceus bicuspidatus</i> | 30 |
| | Isopod | <i>Caecidotea ancyla</i> | 27 |
| | Shelled Cave Springtail | <i>Pseudosinella testa</i> | 27 |
| | Springtail | <i>Pygmarrrhopalites clarus</i> | 25 |
| | Isopod | <i>Caecidotea stiladactyla</i> | 23 |
| | Pseudoscorpion | <i>Hesperochernes occidentalis</i> | 23 |
| | Ozark Cave Amphipod | <i>Stygobromus ozarkensis</i> | 23 |
| | Pseudoscorpion | <i>Tartarocreagris ozarkensis</i> | 23 |
| | Mammal | | <i>Corynorhinus townsendii</i> |
| Ozark Big-eared Bat | | <i>ingens</i> | 80 |
| Northern Long-eared Bat | | <i>Myotis septentrionalis</i> | 63 |
| Indiana Bat | | <i>Myotis sodalis</i> | 62 |
| Eastern Small-Footed Bat | | <i>Myotis leibii</i> | 34 |
| Little Brown Bat | | <i>Myotis lucifugus</i> | 33 |
| Plains Harvest Mouse | | <i>Reithrodontomys montanus</i> | 23 |
| Eastern Spotted Skunk | | <i>Spilogale putorius</i> | 21 |
| Crawford's Gray Shrew | | <i>Notiosorex crawfordi</i> | 19 |
| Southeastern Shrew | | <i>Sorex longirostris</i> | 19 |
| Gray Bat | | <i>Myotis grisescens</i> | 16 |
| American Badger | | <i>Taxidea taxus</i> | 16 |
| Long-tailed Weasel | | <i>Mustela frenata</i> | 15 |
| Mussel | Speckled Pocketbook | <i>Lampsilis streckeri</i> | 80 |
| | Neosho Mucket | <i>Lampsilis rafinesqueana</i> | 62 |
| | Rabbitsfoot | <i>Quadrula cylindrica cylindrica</i> | 52 |
| | Western Fanshell | <i>Cyprogenia aberti</i> | 43 |
| | Spectaclecase | <i>Cumberlandia monodonta</i> | 38 |
| | Pyramid Pigtoe | <i>Pleurobema rubrum</i> | 38 |
| | Salamander Mussel | <i>Simpsonaias ambigua</i> | 34 |
| | Purple Lilliput | <i>Toxolasma lividum</i> | 33 |
| | "Elongate" Pigtoe | <i>Fusconaia sp. cf. flava</i> | 29 |
| Ouachita Kidneyshell | <i>Ptychobranthus occidentalis</i> | 23 | |

| | | | |
|---------|----------------------------|--------------------------------------|----|
| | Ellipse | <i>Venustaconcha ellipsiformis</i> | 23 |
| | Bleedingtooth Mussel | <i>Venustaconcha pleasii</i> | 23 |
| | Elktoe | <i>Alasmidonta marginata</i> | 19 |
| | "White" Hickorynut | <i>Obovaria sp. cf arkansasensis</i> | 19 |
| | Gulf Mapleleaf | <i>Quadrula nobilis</i> | 19 |
| | Lilliput | <i>Toxolasma parvum</i> | 19 |
| | Pondhorn | <i>Unio merus tetralasmus</i> | 19 |
| | Round Pigtoe | <i>Pleurobema sintoxia</i> | 17 |
| | Little Spectaclecase group | <i>Villosa sp. cf lienosa</i> | 17 |
| | Rainbow | <i>Villosa iris</i> | 15 |
| Reptile | Queensnake | <i>Regina septemvittata</i> | 29 |
| | Great Plains Skink | <i>Plestiodon obsoletus</i> | 23 |
| | Prairie Skink | <i>Plestiodon septentrionalis</i> | 19 |
| | Graham's Crayfish Snake | <i>Regina grahamii</i> | 19 |
| | Ornate Box Turtle | <i>Terrapene ornata</i> | 19 |
| | Western Diamond-backed | <i>Crotalus atrox</i> | 17 |
| | Slender Glass Lizard | <i>Ophisaurus attenuatus</i> | 15 |

Table 3.8. Species of greatest conservation need (SGCN) in the Boston Mountains ranked by priority score. A higher priority score indicates a greater need for actions to conserve the species. Of the 377 SGCN, 160 occur in this ecoregion.

| Priority Score | Common Name | Scientific Name | Taxa Association |
|----------------|--------------------------------|---------------------------------------|----------------------|
| 100 | Yellowcheek Darter | <i>Etheostoma moorei</i> | Fish |
| 80 | Bowed Snowfly | <i>Allocapnia oribata</i> | Insect |
| 80 | Ozark Big-eared Bat | <i>Corynorhinus townsendii ingens</i> | Mammal |
| 80 | Speckled Pocketbook | <i>Lampsilis streckeri</i> | Mussel |
| 80 | Ground Beetle | <i>Rhadine ozarkensis</i> | Insect |
| 65 | Cave Obligate Pseudoscorpion | <i>Apochthonius diabolus</i> | Invertebrate - other |
| 65 | Cave Obligate Harvestman | <i>Crosbyella distincta</i> | Invertebrate - other |
| 65 | Cave Obligate Harvestman | <i>Crosbyella roeweri</i> | Invertebrate - other |
| 65 | Nearctic Paduniellan Caddisfly | <i>Paduniella nearctica</i> | Insect |
| 65 | Cave Obligate Millipede | <i>Trigenotyia parca</i> | Invertebrate - other |
| 63 | Northern Long-eared Bat | <i>Myotis septentrionalis</i> | Mammal |
| 62 | Boston Mountains Crayfish | <i>Cambarus causeyi</i> | Crayfish |
| 62 | Neosho Mucket | <i>Lampsilis rafinesqueana</i> | Mussel |
| 62 | Indiana Bat | <i>Myotis sodalis</i> | Mammal |
| 52 | Rabbitsfoot | <i>Quadrula cylindrica cylindrica</i> | Mussel |
| 50 | Winter Stonefly | <i>Allocapnia jeanae</i> | Insect |
| 50 | Winter Stonefly | <i>Allocapnia ozarkana</i> | Insect |
| 50 | Springtail | <i>Pseudosinella dubia</i> | Invertebrate - other |
| 50 | Cave Obligate Springtail | <i>Schaefferia alabamensis</i> | Invertebrate - other |
| 46 | Predaceous Diving Beetle | <i>Heterosternuta phoebeae</i> | Insect |
| 43 | Piping Plover | <i>Charadrius melodus</i> | Bird |
| 43 | Western Fanshell | <i>Cyprogenia aberti</i> | Mussel |
| 42 | Isopod | <i>Caecidotea oculata</i> | Invertebrate - other |
| 42 | Cave Obligate Isopod | <i>Caecidotea simulator</i> | Invertebrate - other |
| 42 | Cave Obligate Planarian | <i>Dendrocoelopsis americana</i> | Invertebrate - other |
| 38 | Linda's Roadside-Skipper | <i>Amblyscirtes linda</i> | Insect |
| 38 | Isopod | <i>Caecidotea dimorpha</i> | Invertebrate - other |
| 38 | Bat Cave Isopod | <i>Caecidotea macropropoda</i> | Invertebrate - other |
| 38 | Spectaclecase | <i>Cumberlandia monodonta</i> | Mussel |
| 38 | Pyramid Pigtoe | <i>Pleurobema rubrum</i> | Mussel |
| 34 | Swamp Metalmark | <i>Calephelis muticum</i> | Insect |
| 34 | Williams' Crayfish | <i>Orconectes williamsi</i> | Crayfish |
| 34 | Salamander Mussel | <i>Simpsonaias ambigua</i> | Mussel |
| 34 | Ozark Emerald | <i>Somatochlora ozarkensis</i> | Insect |
| 33 | Henslow's Sparrow | <i>Ammodramus henslowii</i> | Bird |
| 33 | Little Brown Bat | <i>Myotis lucifugus</i> | Mammal |
| 33 | Ozark Shiner | <i>Notropis ozarcanus</i> | Fish |
| 33 | Bachman's Sparrow | <i>Peucaea aestivalis</i> | Bird |
| 33 | Purple Lilliput | <i>Toxolasma lividum</i> | Mussel |
| 30 | Mayfly | <i>Dannella provonshai</i> | Insect |

| | | | |
|----|------------------------------|------------------------------------|----------------------|
| 30 | Isopod | <i>Lirceus bicuspidatus</i> | Invertebrate - other |
| 30 | Ozark Swallowtail | <i>Papilio joanae</i> | Insect |
| 29 | Mottled Duskywing | <i>Erynnis martialis</i> | Insect |
| 29 | Rusty Blackbird | <i>Euphagus carolinus</i> | Bird |
| 29 | "Elongate" Pigtoe | <i>Fusconaia sp. cf. flava</i> | Mussel |
| 29 | Queensnake | <i>Regina septemvittata</i> | Reptile |
| 29 | Bewick's Wren | <i>Thryomanes bewickii</i> | Bird |
| 27 | Lace-winged Roadside-Skipper | <i>Amblyscirtes aesculapius</i> | Insect |
| 27 | Carolina Roadside-Skipper | <i>Amblyscirtes carolina</i> | Insect |
| 27 | Isopod | <i>Caecidotea ancyla</i> | Invertebrate - other |
| 27 | Hubbs' Crayfish | <i>Cambarus hubbsi</i> | Crayfish |
| 27 | Appalachian Azure | <i>Celastrina neglectamajor</i> | Insect |
| 27 | Baltimore Checkerspot | <i>Euphydryas phaeton ozarkae</i> | Insect |
| 27 | Ozark Clubtail Dragonfly | <i>Gomphus ozarkensis</i> | Insect |
| 27 | Eastern Small-Footed Bat | <i>Myotis leibii</i> | Mammal |
| 27 | Midget Crayfish | <i>Orconectes nana</i> | Crayfish |
| 27 | Longnose Darter | <i>Percina nasuta</i> | Fish |
| 27 | Shelled Cave Springtail | <i>Pseudosinella testa</i> | Invertebrate - other |
| 25 | Tiger Beetle | <i>Cicindela lepida</i> | Insect |
| 25 | Giant Stag Beetle | <i>Lucanus elaphus</i> | Insect |
| 25 | Springtail | <i>Pygmarrhopalites clarus</i> | Invertebrate - other |
| 25 | Diana | <i>Speyeria diana</i> | Insect |
| 24 | American Eel | <i>Anguilla rostrata</i> | Fish |
| 24 | Common Nighthawk | <i>Chordeiles minor</i> | Bird |
| 24 | Migrant Loggerhead Shrike | <i>Lanius ludovicianus</i> | Bird |
| 24 | Yellow-crowned Night-Heron | <i>Nyctanassa violacea</i> | Bird |
| 24 | Black-bellied Plover | <i>Pluvialis squatarola</i> | Bird |
| 24 | Paddlefish | <i>Polyodon spathula</i> | Fish |
| 24 | American Woodcock | <i>Scolopax minor</i> | Bird |
| 24 | Cerulean Warbler | <i>Setophaga cerulea</i> | Bird |
| 23 | American Bittern | <i>Botaurus lentiginosus</i> | Bird |
| 23 | Isopod | <i>Caecidotea stiladactyla</i> | Invertebrate - other |
| 23 | Northern Metalmark | <i>Calephelis borealis</i> | Insect |
| 23 | Dusky Azure | <i>Celastrina nigra</i> | Insect |
| 23 | Outis Skipper | <i>Cogia outis</i> | Insect |
| 23 | Bluntnose Shiner | <i>Cyprinella camura</i> | Fish |
| 23 | Beetle | <i>Derops divalis</i> | Insect |
| 23 | Willow Flycatcher | <i>Empidonax traillii</i> | Bird |
| 23 | Oklahoma Salamander | <i>Eurycea tynerensis</i> | Amphibian |
| 23 | Pseudoscorpion | <i>Hesperochernes occidentalis</i> | Invertebrate - other |
| 23 | Crawfish Frog | <i>Lithobates areolatus</i> | Amphibian |
| 23 | Great Plains Skink | <i>Plestiodon obsoletus</i> | Reptile |
| 23 | Yehl Skipper | <i>Poanes yehl</i> | Insect |
| 23 | Byssus Skipper | <i>Problema byssus</i> | Insect |
| 23 | Ozark Pseudactium | <i>Pseudactium ursum</i> | Insect |
| 23 | Ouachita Kidneyshell | <i>Ptychobranthus occidentalis</i> | Mussel |

| | | | |
|----|---------------------------|--------------------------------------|----------------------|
| 23 | Plains Harvest Mouse | <i>Reithrodontomys montanus</i> | Mammal |
| 23 | Ground Beetle | <i>Scaphinotus inflectus</i> | Insect |
| 23 | Ozark Cave Amphipod | <i>Stygobromus ozarkensis</i> | Invertebrate - other |
| 23 | Pseudoscorpion | <i>Tartarocreagris ozarkensis</i> | Invertebrate - other |
| 23 | Ellipse | <i>Venustaconcha ellipsiformis</i> | Mussel |
| 23 | Bleedingtooth Mussel | <i>Venustaconcha pleasii</i> | Mussel |
| 21 | Le Conte's Sparrow | <i>Ammodramus leconteii</i> | Bird |
| 21 | Bell's Roadside-Skipper | <i>Amblyscirtes belli</i> | Insect |
| 21 | Golden-banded Skipper | <i>Autochton cellus</i> | Insect |
| 21 | Woodland Tiger Beetle | <i>Cicindela unipunctata</i> | Insect |
| 21 | Sedge Wren | <i>Cistothorus platensis</i> | Bird |
| 21 | Eastern Spotted Skunk | <i>Spilogale putorius</i> | Mammal |
| 19 | Sharp-shinned Hawk | <i>Accipiter striatus</i> | Bird |
| 19 | Elktoe | <i>Alasmodonta marginata</i> | Mussel |
| 19 | Ringed Salamander | <i>Ambystoma annulatum</i> | Amphibian |
| 19 | Brown Bullhead | <i>Ameiurus nebulosus</i> | Fish |
| 19 | Grasshopper Sparrow | <i>Ammodramus savannarum</i> | Bird |
| 19 | Anhinga | <i>Anhinga anhinga</i> | Bird |
| 19 | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | Bird |
| 19 | Sanderling | <i>Calidris alba</i> | Bird |
| 19 | Dunlin | <i>Calidris alpina</i> | Bird |
| 19 | Stilt Sandpiper | <i>Calidris himantopus</i> | Bird |
| 19 | Chimney Swift | <i>Chaetura pelagica</i> | Bird |
| 19 | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | Bird |
| 19 | Northern Bobwhite | <i>Colinus virginianus</i> | Bird |
| 19 | Tricolored Heron | <i>Egretta tricolor</i> | Bird |
| 19 | Autumn Darter | <i>Etheostoma autumnale</i> | Fish |
| 19 | Sunburst Darter | <i>Etheostoma mihileze</i> | Fish |
| 19 | American Kestrel | <i>Falco sparverius</i> | Bird |
| 19 | Common Gallinule | <i>Gallinula galeata</i> | Bird |
| 19 | Purple Finch | <i>Haemorhous purpureus</i> | Bird |
| 19 | Four-toed Salamander | <i>Hemidactylium scutatum</i> | Amphibian |
| 19 | Leonard's Skipper | <i>Hesperia leonardus</i> | Insect |
| 19 | Cobweb Skipper | <i>Hesperia metea</i> | Insect |
| 19 | Ouachita Diving Beetle | <i>Heterosternuta ouachita</i> | Insect |
| 19 | Wood Thrush | <i>Hylocichla mustelina</i> | Bird |
| 19 | Least Bittern | <i>Ixobrychus exilis</i> | Bird |
| 19 | American Brook Lamprey | <i>Lethenteron appendix</i> | Fish |
| 19 | Short-billed Dowitcher | <i>Limnodromus griseus</i> | Bird |
| 19 | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | Bird |
| 19 | Crawford's Gray Shrew | <i>Notiosorex crawfordi</i> | Mammal |
| 19 | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | Bird |
| 19 | "White" Hickorynut | <i>Obovaria sp. cf arkansasensis</i> | Mussel |
| 19 | Small-eyed Mold Beetle | <i>Ouachitychus parvocolus</i> | Insect |
| 19 | Gilt Darter | <i>Percina evides</i> | Fish |
| 19 | Prairie Skink | <i>Plestiodon septentrionalis</i> | Reptile |

| | | | |
|----|-----------------------------|----------------------------------|-----------|
| 19 | Gray Comma | <i>Polygonia progne</i> | Insect |
| 19 | Gulf Mapleleaf | <i>Quadrula nobilis</i> | Mussel |
| 19 | Graham's Crayfish Snake | <i>Regina grahamii</i> | Reptile |
| 19 | Oak Hairstreak | <i>Satyrium favonius ontario</i> | Insect |
| 19 | Hurter's Spadefoot | <i>Scaphiopus hurterii</i> | Amphibian |
| 19 | Southeastern Shrew | <i>Sorex longirostris</i> | Mammal |
| 19 | Ornate Box Turtle | <i>Terrapene ornata</i> | Reptile |
| 19 | Lilliput | <i>Toxolasma parvum</i> | Mussel |
| 19 | Pondhorn | <i>Unio merus tetralasmus</i> | Mussel |
| 19 | Bell's Vireo | <i>Vireo bellii</i> | Bird |
| 17 | Highfin Carpsucker | <i>Carpionodes velifer</i> | Fish |
| 17 | Beach-dune Tiger Beetle | <i>Cicindela hirticollis</i> | Insect |
| 17 | Sandy Stream Tiger Beetle | <i>Cicindela macra</i> | Insect |
| 17 | Western Diamond-backed | <i>Crotalus atrox</i> | Reptile |
| 17 | Trumpeter Swan | <i>Cygnus buccinator</i> | Bird |
| 17 | Round Pigtoe | <i>Pleurobema sintoxia</i> | Mussel |
| 17 | Little Spectaclecase group | <i>Villosa sp. cf lienosa</i> | Mussel |
| 16 | Gray Bat | <i>Myotis grisescens</i> | Mammal |
| 16 | American Badger | <i>Taxidea taxus</i> | Mammal |
| 15 | Gorgone Checkerspot | <i>Chlosyne gorgone</i> | Insect |
| 15 | Monarch | <i>Danaus plexippus</i> | Insect |
| 15 | Highland Darter | <i>Etheostoma teddyroosevelt</i> | Fish |
| 15 | Wood Frog | <i>Lithobates sylvaticus</i> | Amphibian |
| 15 | Long-tailed Weasel | <i>Mustela frenata</i> | Mammal |
| 15 | Slender Glass Lizard | <i>Ophisaurus attenuatus</i> | Reptile |
| 15 | American Golden-Plover | <i>Pluvialis dominica</i> | Bird |
| 15 | Rainbow | <i>Villosa iris</i> | Mussel |
| 13 | Twelve-spotted Tiger Beetle | <i>Cicindela duodecimguttata</i> | Insect |

Habitats that occur in the Boston Mountains

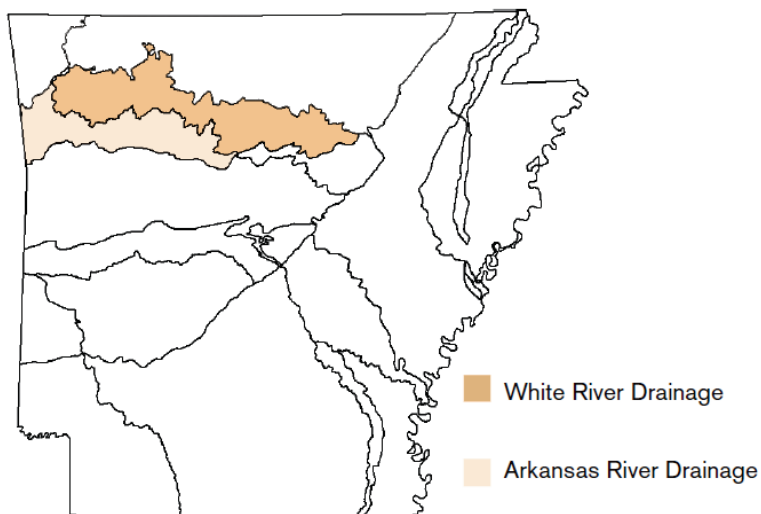
Of the 37 terrestrial habitats in Arkansas, 19 occur in the Boston Mountains ecoregion (Table 3.9). Of 18 ecobasins in Arkansas, two occur in the Boston Mountains (Figure 3.8). These associations are described in the Section 4. Terrestrial Habitats, pages 1188-1575 and Section 5. Aquatic Habitats, pages 1576-1612.

Table 3.9. Terrestrial Habitats in the Boston Mountains

Habitat Name

Caves, Mines, Sinkholes, and other Karst Habitat
Crop Land
Cultivated Forest
Herbaceous Wetland
Interior Highlands Calcareous Glade and Barrens
Interior Highlands Dry Acidic Glade and Barrens
Mud Flats
Ozark-Ouachita Cliff and Talus
Ozark-Ouachita Dry Oak and Pine Woodland
Ozark-Ouachita Dry-Mesic Oak Forest
Ozark-Ouachita Forested Seep
Ozark-Ouachita Large Floodplain
Ozark-Ouachita Mesic Hardwood Forest
Ozark-Ouachita Pine/Bluestem Woodland
Ozark-Ouachita Pine-Oak Forest/ Woodland
Ozark-Ouachita Riparian
Pasture Land
Ponds, Lakes, and Water Holes
Urban/Suburban

Figure 3.8. Ecobasin distribution in the Boston Mountains.



Problems faced by Species of Greatest Conservation Need (SGCN)

Taxa association teams listed problems faced by SGCN individually in the Species Reports, pages 45-1082. A summary of the problems faced by SGCN in the Boston Mountains is presented below. Each problem has a score which is a sum of all Species Priority Scores associated with species for which this problem was assigned. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species associated with problems listed here.

Table 3.10. Problems faced by SGCN.

| Problem faced | Score |
|-----------------------------------|-------|
| Urban development | 2433 |
| Forestry activities | 1733 |
| Grazing/Browsing | 1630 |
| Agricultural practices | 1561 |
| Dam | 1555 |
| Resource extraction | 1547 |
| Road construction | 793 |
| Confined animal operations | 616 |
| Municipal/Industrial point source | 586 |
| Fire suppression | 452 |
| Channel alteration | 410 |
| Parasites/pathogens | 400 |
| Recreation | 379 |
| Channel maintenance | 369 |
| Water diversion | 342 |

| | |
|--|-----|
| Conversion of riparian forest | 333 |
| Commercial/industrial development | 286 |
| Exotic species | 283 |
| Non-point source pollution | 131 |
| Excessive groundwater withdrawal | 121 |
| Predation | 97 |
| Grazing | 57 |
| Management of/for certain species | 46 |
| Interspecific competition | 29 |
| Excessive non-commercial harvest or collection | 27 |
| Commercial harvest | 24 |

Conservation actions needed in the Boston Mountains

Descriptions of conservation actions linked to individual species on the list of SGCN are presented in the Species Reports, pages 45-1082. Below are categories of conservation actions recommended by the taxa association teams (Figure 3.9).

The score associated with the conservation action category is the sum of all priority scores associated with species for which a conservation action has been assigned, weighted by the importance of the conservation action category to the species. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species would be affected by actions within this conservation action category.

These scores may be used as guides to directing the apportionment of funding toward conservation actions benefiting habitats and species of greatest conservation need.

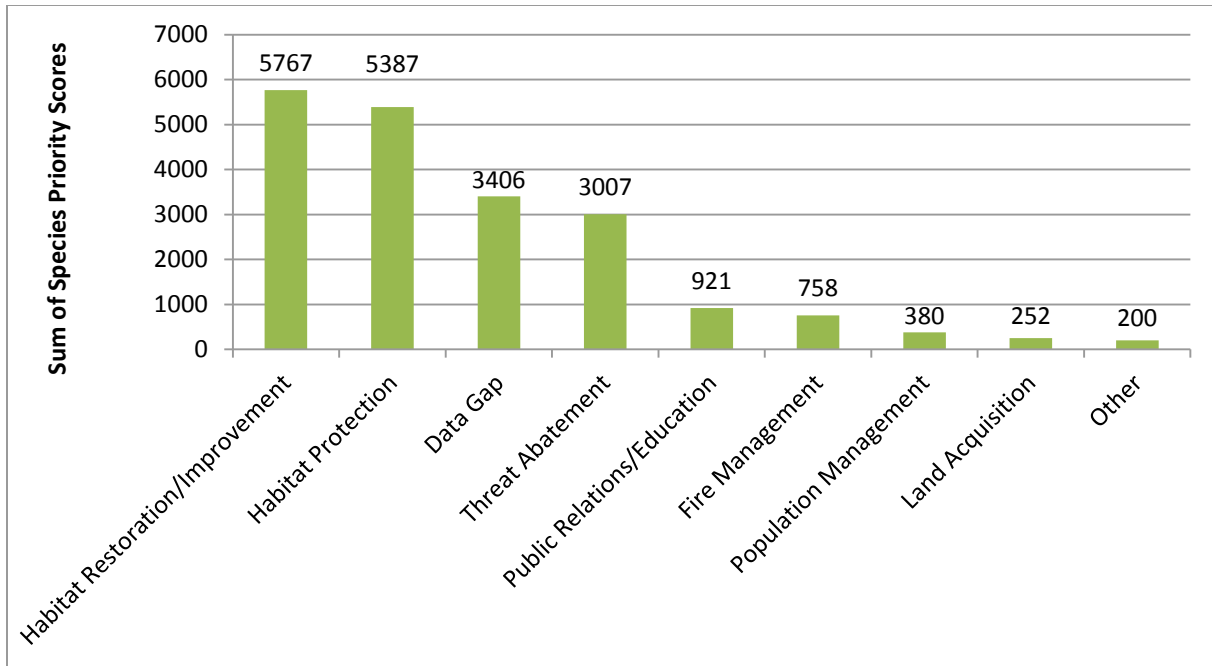


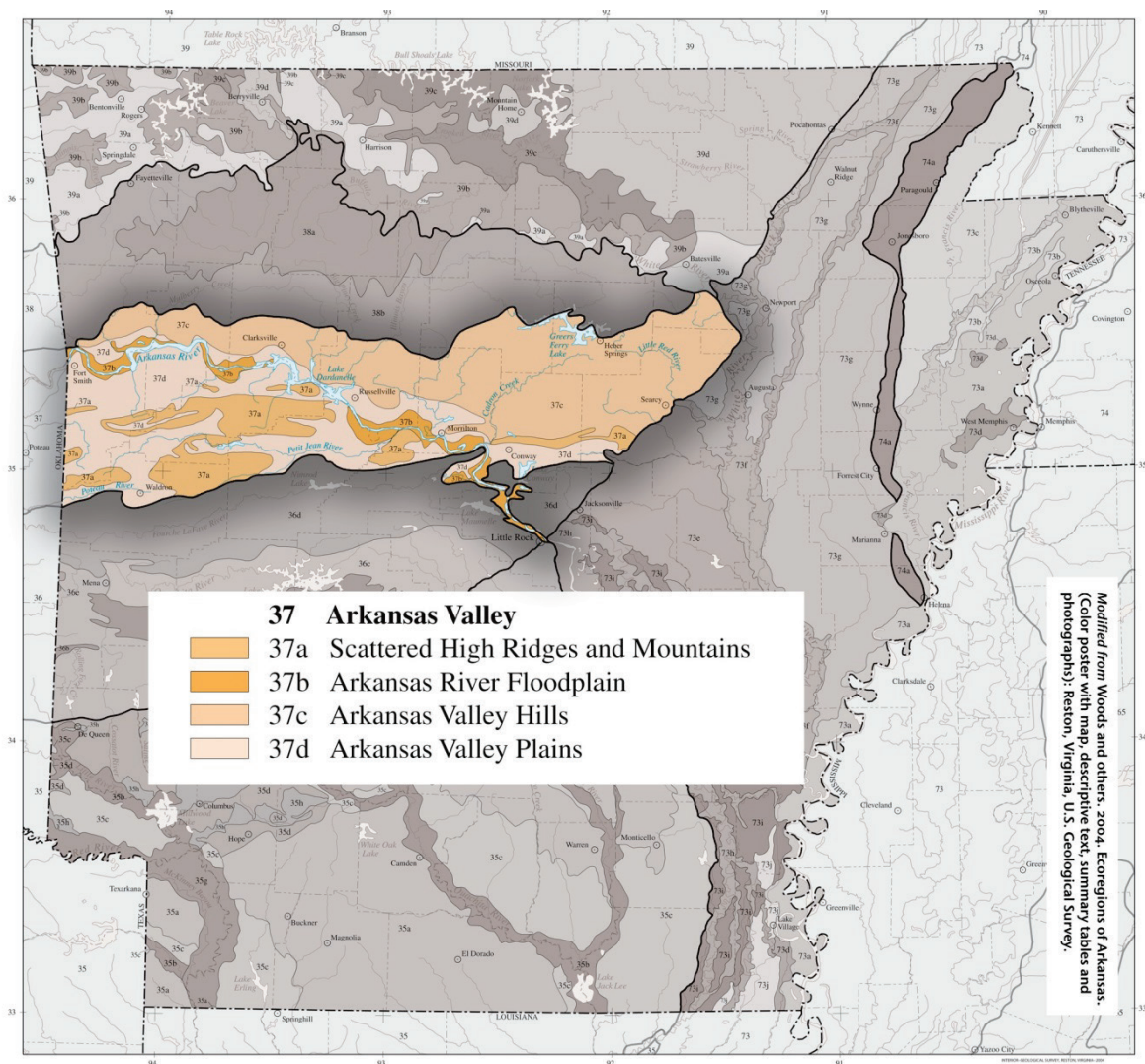
Figure 3.9. Conservation action categories recommended for the Boston Mountains.

Arkansas Valley (Ecoregion 37)

Ecoregion 37 is a synclinal and alluvial valley lying between the Ozark Highlands (39) and the Ouachita Mountains (36). The Arkansas Valley (37) is, characteristically, diverse and transitional. It generally coincides with the Arkoma Basin, an oil and gas province, that developed as sand and mud were deposited in a depression north of the rising Ouachita Mountains during the Mississippian and Pennsylvanian eras.

The Arkansas Valley (37) contains plains, hills, floodplains and scattered mountains. It is largely underlain by interbedded Pennsylvanian sandstone, shale and siltstone.

Figure 3.10. Arkansas Valley Ecoregion





Prior to the 19th century, uplands were dominated by a mix of forest, woodland, savanna and prairie whereas floodplains and lower terraces were covered by bottomland deciduous forest. Today, less rugged upland areas have been cleared for pastureland or hayland. Poultry and livestock farming are important land uses.

Water quality is generally good and influenced more by land use activities than by soils or geology; average stream gradients and dissolved oxygen levels are lower in the Arkansas Valley (37) than in the Ouachita Mountains (36) or Ozark Highlands (39), whereas turbidity, total suspended solids, total organic carbon, total phosphorus and biochemical oxygen demand values are typically higher. The Arkansas River is continuously turbid. Summer flow in smaller streams is typically limited or non-existent.

Fish communities characteristically contain a substantial proportion of sensitive species; a sunfish and minnow-dominated community exists along with substantial proportions of darters and catfishes (particularly madtoms).

Scattered High Ridges and Mountains

37a. The Scattered High Ridges and Mountains ecoregion is more rugged and wooded than Ecoregions 37b, 37c, or 37d. Ecoregion 37a is characteristically covered by savannas, open woodlands, or forests dominated or codominated by upland oaks, hickory and shortleaf pine; loblolly pine occurs but is not native. It is underlain by Pennsylvanian sandstone and shale; calcareous rocks such as those that dominate the Ozark Highlands (39) are absent.

Nutrient and mineral values (including turbidity and hardness) in streams are slightly higher than in other parts of the Arkansas Valley (37). Magazine Mountain, the highest point in Arkansas at

2,753 feet, is distinguished by diverse habitats. Its flat top is covered with xeric, stunted woodlands. Mesic sites also occur and may contain beech–maple forests.

Arkansas River Floodplain

37b. The Arkansas River Floodplain is characteristically veneered with Holocene alluvium and includes natural levees, meander scars, oxbow lakes, point bars, swales and backswamps. It is lithologically and physiographically distinct from the surrounding uplands of the Arkansas Valley (37). Mollisols, Entisols, Alfisols and Inceptisols are common; the soil mosaic sharply contrasts with nearby, higher elevation ecoregions where Ultisols developed under upland oaks, hickory and pine.

Potential natural vegetation is southern floodplain forest. Bottomland oaks including bur oak, American sycamore, sweetgum, willows, eastern cottonwood, green ash, pecan, hackberry and elm were once extensive. They have been widely cleared for pastureland, hayland and cropland. However, some forest remains in frequently flooded or poorly-drained areas. In Arkansas, bur oak is most dominant in Ecoregion 37b.

Arkansas Valley Hills

37c. The Arkansas Valley Hills are underlain by Pennsylvanian sandstone and shale and are lithologically distinct from Ecoregions 37b and 39. Ecoregion 37c is more hilly than the Arkansas Valley Plains (37d) and less rugged than Ecoregions 36, 37a and 38. Ultisols are common and support a potential natural vegetation of oak–hickory forest or oak–hickory–pine forest; both soils and natural vegetation contrast with those of Ecoregion 37b.

Today, pastureland is extensive, but rugged areas are wooded; overall, trees are much less extensive than in neighboring Ecoregions 36d, 37a and 38 but more widespread than in Ecoregions 37b and 37d. Poultry operations, livestock farming and logging are important land uses.

Arkansas Valley Plains

37d. The Arkansas Valley Plains are in the rainshadow of the Fourche Mountains and were once covered by a distinctive mosaic of prairie, savanna and woodland. Ecoregion 37d is mostly undulating but a few hills and ridges occur.

Westward, Ecoregion 37d becomes flatter, drier, more open and has fewer topographic fire barriers. Prior to the 19th century, frequently burned western areas had extensive prairie on droughty soils; scattered pine–oak savanna also occurred. Elsewhere, potential natural vegetation is primarily oak–hickory forest or oak–hickory–pine forest.

Today, pastureland and hayland are extensive but remnants of prairie, particularly the Cherokee Prairie near Fort Smith and woodland occur. Poultry and livestock farming are primary land

uses. Cropland agriculture in the Arkansas Valley Plains (37d) is less important than in Ecoregion 37b and wooded areas are not as extensive as in more rugged Ecoregions 36, 37a, 37c and 38. Stream turbidity generally remains low except during storm events (adapted from Woods and others 2004).

Arkansas Valley Ecoregion:

Species of Greatest Conservation Need (SGCN)

Species of greatest conservation need (SGCN) in the Arkansas Valley are presented by taxa association (Table 3.11). A ranked list of all SGCN associated with the ecoregion is presented in Table 3.12.

Table 3.11. SGCN by taxa association in the Arkansas Valley ecoregion.

| Taxa Association | Common Name | Scientific Name | Priority Score |
|-------------------------|-------------------------------|---------------------------------------|-----------------------|
| Amphibian | Oklahoma Salamander | <i>Eurycea tynerensis</i> | 23 |
| | Crawfish Frog | <i>Lithobates areolatus</i> | 23 |
| | Plains Spadefoot | <i>Spea bombifrons</i> | 23 |
| | Ringed Salamander | <i>Ambystoma annulatum</i> | 19 |
| | Great Plains Narrowmouth Toad | <i>Gastrophryne olivacea</i> | 19 |
| | Strecker's Chorus Frog | <i>Pseudacris streckeri</i> | 19 |
| | Hurter's Spadefoot | <i>Scaphiopus hurterii</i> | 19 |
| | Bird-voiced Treefrog | <i>Hyla avivoca</i> | 15 |
| Bird | Piping Plover | <i>Charadrius melodus</i> | 43 |
| | Henslow's Sparrow | <i>Ammodramus henslowii</i> | 33 |
| | Sprague's Pipit | <i>Anthus spragueii</i> | 33 |
| | Bachman's Sparrow | <i>Peucaea aestivalis</i> | 33 |
| | King Rail | <i>Rallus elegans</i> | 33 |
| | Interior Least Tern | <i>Sternula antillarum athalassos</i> | 31 |
| | Buff-breasted Sandpiper | <i>Calidris subruficollis</i> | 29 |
| | Rusty Blackbird | <i>Euphagus carolinus</i> | 29 |
| | Bewick's Wren | <i>Thryomanes bewickii</i> | 29 |
| | Ruddy Turnstone | <i>Arenaria interpres</i> | 24 |
| | Smith's Longspur | <i>Calcarius pictus</i> | 24 |
| | Common Nighthawk | <i>Chordeiles minor</i> | 24 |
| | Migrant Loggerhead Shrike | <i>Lanius ludovicianus</i> | 24 |
| | Yellow-crowned Night-Heron | <i>Nyctanassa violacea</i> | 24 |
| | Black-bellied Plover | <i>Pluvialis squatarola</i> | 24 |
| | American Woodcock | <i>Scolopax minor</i> | 24 |
| | Cerulean Warbler | <i>Setophaga cerulea</i> | 24 |
| | Rufous-crowned Sparrow | <i>Aimophila ruficeps</i> | 23 |
| | American Bittern | <i>Botaurus lentiginosus</i> | 23 |
| | Willow Flycatcher | <i>Empidonax traillii</i> | 23 |

| | | | |
|----------|----------------------------|---------------------------------|----|
| | Purple Gallinule | <i>Porphyrio martinicus</i> | 23 |
| | Le Conte's Sparrow | <i>Ammodramus leconteii</i> | 21 |
| | Sedge Wren | <i>Cistothorus platensis</i> | 21 |
| | Sharp-shinned Hawk | <i>Accipiter striatus</i> | 19 |
| | Grasshopper Sparrow | <i>Ammodramus savannarum</i> | 19 |
| | American Black Duck | <i>Anas rubripes</i> | 19 |
| | Anhinga | <i>Anhinga anhinga</i> | 19 |
| | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | 19 |
| | Sanderling | <i>Calidris alba</i> | 19 |
| | Dunlin | <i>Calidris alpina</i> | 19 |
| | Stilt Sandpiper | <i>Calidris himantopus</i> | 19 |
| | Chimney Swift | <i>Chaetura pelagica</i> | 19 |
| | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | 19 |
| | Northern Bobwhite | <i>Colinus virginianus</i> | 19 |
| | Tricolored Heron | <i>Egretta tricolor</i> | 19 |
| | American Kestrel | <i>Falco sparverius</i> | 19 |
| | Common Gallinule | <i>Gallinula galeata</i> | 19 |
| | Purple Finch | <i>Haemorhous purpureus</i> | 19 |
| | Wood Thrush | <i>Hylocichla mustelina</i> | 19 |
| | Least Bittern | <i>Ixobrychus exilis</i> | 19 |
| | Short-billed Dowitcher | <i>Limnodromus griseus</i> | 19 |
| | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | 19 |
| | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | 19 |
| | Bell's Vireo | <i>Vireo bellii</i> | 19 |
| | Trumpeter Swan | <i>Cygnus buccinator</i> | 17 |
| | American Golden-Plover | <i>Pluvialis dominica</i> | 15 |
| Crayfish | Boston Mountains Crayfish | <i>Cambarus causeyi</i> | 62 |
| | Bismark Burrowing Crayfish | <i>Procambarus parasimulans</i> | 19 |
| Fish | Alabama Shad | <i>Alosa alabamae</i> | 52 |
| | Arkansas River Shiner | <i>Notropis girardi</i> | 50 |
| | Alligator Gar | <i>Atractosteus spatula</i> | 27 |
| | Plains Minnow | <i>Hybognathus placitus</i> | 27 |
| | Longnose Darter | <i>Percina nasuta</i> | 27 |
| | American Eel | <i>Anguilla rostrata</i> | 24 |
| | Paddlefish | <i>Polyodon spathula</i> | 24 |
| | Blue Sucker | <i>Cycleptus elongatus</i> | 23 |
| | Bluntnose Shiner | <i>Cyprinella camura</i> | 23 |
| | Suckermouth Minnow | <i>Phenacobius mirabilis</i> | 23 |
| | Brown Bullhead | <i>Ameiurus nebulosus</i> | 19 |
| | Autumn Darter | <i>Etheostoma autumnale</i> | 19 |
| | Sunburst Darter | <i>Etheostoma mihileze</i> | 19 |
| | Goldeye | <i>Hiodon alosoides</i> | 19 |
| | Mooneye | <i>Hiodon tergisus</i> | 19 |
| | Pealip Redhorse | <i>Moxostoma pisolabrum</i> | 19 |

| | | | |
|--------|--------------------------------|------------------------------------|----|
| | Striped Mullet | <i>Mugil cephalus</i> | 19 |
| | Slenderhead Darter | <i>Percina phoxocephala</i> | 19 |
| | Highfin Carpsucker | <i>Carpionodes velifer</i> | 17 |
| | Lake Chubsucker | <i>Erimyzon sucetta</i> | 15 |
| | Highland Darter | <i>Etheostoma teddyroosevelt</i> | 15 |
| | Shoal Chub | <i>Macrhybopsis hyostoma</i> | 15 |
| | Saddleback Darter | <i>Percina vigil</i> | 15 |
| Insect | Magazine Mountain Mold Beetle | <i>Arianops sandersoni</i> | 80 |
| | Magazine Stripetail | <i>Isoperla szczytkoi</i> | 80 |
| | Microcaddisfly | <i>Paucicalcaria ozarkensis</i> | 80 |
| | Nearctic Paduniellan Caddisfly | <i>Paduniella nearctica</i> | 65 |
| | Mayfly | <i>Paraleptophlebia calcarica</i> | 65 |
| | Arogos Skipper | <i>Atrytone arogos iowa</i> | 50 |
| | Texas Frosted Elfin | <i>Callophrys irus hadros</i> | 42 |
| | American Burying Beetle | <i>Nicrophorus americanus</i> | 42 |
| | Dukes' Skipper | <i>Euphyes dukesi</i> | 32 |
| | Prairie Mole Cricket | <i>Gryllotalpa major</i> | 32 |
| | Mottled Duskywing | <i>Erynnis martialis</i> | 29 |
| | Meske's Skipper | <i>Hesperia meskei</i> | 29 |
| | Lace-winged Roadside-Skipper | <i>Amblyscirtes aesculapius</i> | 27 |
| | King's Hairstreak | <i>Satyrium kingi</i> | 27 |
| | Tiger Beetle | <i>Cicindela lepida</i> | 25 |
| | Giant Stag Beetle | <i>Lucanus elaphus</i> | 25 |
| | Diana | <i>Speyeria diana</i> | 25 |
| | Lace Bug | <i>Acalypta susanae</i> | 23 |
| | Northern Metalmark | <i>Calephelis borealis</i> | 23 |
| | Outis Skipper | <i>Cogia outis</i> | 23 |
| | Beetle | <i>Derops divalis</i> | 23 |
| | Yehl Skipper | <i>Poanes yehl</i> | 23 |
| | Byssus Skipper | <i>Problema byssus</i> | 23 |
| | Ouachita Pseudactium | <i>Pseudactium magazinensis</i> | 23 |
| | Ground Beetle | <i>Scaphinotus parisiana</i> | 23 |
| | Bell's Roadside-Skipper | <i>Amblyscirtes belli</i> | 21 |
| | Ant-like Tiger Beetle | <i>Cicindela cursitans</i> | 21 |
| | Woodland Tiger Beetle | <i>Cicindela unipunctata</i> | 21 |
| | Red Milkweed Beetle | <i>Tetraopes quinque maculatus</i> | 21 |
| | Texas Milkweed Beetle | <i>Tetraopes texanus</i> | 21 |
| | Lace Bug | <i>Acalypta lillianus</i> | 19 |
| | Dion Skipper | <i>Euphyes dion</i> | 19 |
| | Leonard's Skipper | <i>Hesperia leonardus</i> | 19 |
| | Cobweb Skipper | <i>Hesperia metea</i> | 19 |
| | Small-eyed Mold Beetle | <i>Ouachitychus parvocolus</i> | 19 |
| | Gray Comma | <i>Polygonia progne</i> | 19 |
| | Oak Hairstreak | <i>Satyrium favonius ontario</i> | 19 |

| | | | |
|----------------------|---------------------------------|--|----|
| | Big Sand Tiger Beetle | <i>Cicindela formosa pigmentosignata</i> | 17 |
| | Beach-dune Tiger Beetle | <i>Cicindela hirticollis</i> | 17 |
| | Sandy Stream Tiger Beetle | <i>Cicindela macra</i> | 17 |
| | Gorgone Checkerspot | <i>Chlosyne gorgone</i> | 15 |
| | Monarch | <i>Danaus plexippus</i> | 15 |
| | Twelve-spotted Tiger Beetle | <i>Cicindela duodecimguttata</i> | 13 |
| Invertebrate - other | Magazine Mountain Shagreen | <i>Inflectarius magazinensis</i> | 80 |
| | Striate Supercoil | <i>Paravitrea aulacogyra</i> | 80 |
| | Calico Rock Oval | <i>Patera clenchi</i> | 65 |
| | Elevated Spring Amphipod | <i>Stygobromus elatus</i> | 65 |
| | Hubricht's Long-tailed Amphipod | <i>Allocrangonyx hubrichti</i> | 42 |
| | Isopod | <i>Caecidotea dimorpha</i> | 38 |
| | Isopod | <i>Lirceus bicuspidatus</i> | 30 |
| Mammal | Northern Long-eared Bat | <i>Myotis septentrionalis</i> | 63 |
| | Eastern Small-Footed Bat | <i>Myotis leibii</i> | 34 |
| | Little Brown Bat | <i>Myotis lucifugus</i> | 33 |
| | Rafinesque's Big-Eared Bat | <i>Corynorhinus rafinesquii</i> | 29 |
| | Southeastern Bat | <i>Myotis austroriparius</i> | 24 |
| | Black-tailed Jackrabbit | <i>Lepus californicus</i> | 21 |
| | Eastern Spotted Skunk | <i>Spilogale putorius</i> | 21 |
| | Crawford's Gray Shrew | <i>Notiosorex crawfordi</i> | 19 |
| | Eastern Harvest Mouse | <i>Reithrodontomys humulis</i> | 19 |
| | Southeastern Shrew | <i>Sorex longirostris</i> | 19 |
| | Gray Bat | <i>Myotis grisescens</i> | 16 |
| | American Badger | <i>Taxidea taxus</i> | 16 |
| | Long-tailed Weasel | <i>Mustela frenata</i> | 15 |
| Mussel | Pyramid Pigtoe | <i>Pleurobema rubrum</i> | 38 |
| | Purple Lilliput | <i>Toxolasma lividum</i> | 33 |
| | Bleedingtooth Mussel | <i>Venustaconcha pleasii</i> | 23 |
| | Elktoe | <i>Alasmidonta marginata</i> | 19 |
| | Lilliput | <i>Toxolasma parvum</i> | 19 |
| | Round Pigtoe | <i>Pleurobema sintoxia</i> | 17 |
| | Little Spectaclecase group | <i>Villosa sp. cf lienosa</i> | 17 |
| | "Arkoma" Fatmucket | <i>Lampsilis sp. A cf hydiana</i> | 15 |
| | Fawnsfoot | <i>Truncilla donaciformis</i> | 15 |
| Reptile | Queensnake | <i>Regina septemvittata</i> | 29 |
| | Eastern Collared Lizard | <i>Crotaphytus collaris</i> | 24 |
| | Great Plains Skink | <i>Plestiodon obsoletus</i> | 23 |
| | Chicken Turtle | <i>Deirochelys reticularia</i> | 19 |
| | Prairie Skink | <i>Plestiodon septentrionalis</i> | 19 |
| | Graham's Crayfish Snake | <i>Regina grahamii</i> | 19 |
| | Ornate Box Turtle | <i>Terrapene ornata</i> | 19 |
| | Western Diamond-backed | <i>Crotalus atrox</i> | 17 |

| | | |
|----------------------|------------------------------|----|
| Glossy Swampsnake | <i>Liodytes rigida</i> | 15 |
| Slender Glass Lizard | <i>Ophisaurus attenuatus</i> | 15 |

Table 3.12. Species of greatest conservation need (SGCN) in the Arkansas Valley ranked by priority score. A higher priority score indicates a greater need for actions to conserve the species. Of the 377 SGCN, 161 occur in this ecoregion.

| Priority Score | Common Name | Scientific Name | Taxa Association |
|----------------|---------------------------------|---------------------------------------|----------------------|
| 80 | Magazine Mountain Mold Beetle | <i>Arianops sandersoni</i> | Insect |
| 80 | Magazine Mountain Shagreen | <i>Inflectarius magazinensis</i> | Invertebrate - other |
| 80 | Magazine Stripetail | <i>Isoperla szczytkoi</i> | Insect |
| 80 | Striate Supercoil | <i>Paravitrea aulacogyra</i> | Invertebrate - other |
| 80 | Microcaddisfly | <i>Paucicalcaria ozarkensis</i> | Insect |
| 65 | Nearctic Paduniellan Caddisfly | <i>Paduniella nearctica</i> | Insect |
| 65 | Mayfly | <i>Paraleptophlebia calcarica</i> | Insect |
| 65 | Calico Rock Oval | <i>Patera clenchi</i> | Invertebrate - other |
| 65 | Elevated Spring Amphipod | <i>Stygobromus elatus</i> | Invertebrate - other |
| 63 | Northern Long-eared Bat | <i>Myotis septentrionalis</i> | Mammal |
| 62 | Boston Mountains Crayfish | <i>Cambarus causeyi</i> | Crayfish |
| 52 | Alabama Shad | <i>Alosa alabamiae</i> | Fish |
| 50 | Arogos Skipper | <i>Atrytone arogos iowa</i> | Insect |
| 50 | Arkansas River Shiner | <i>Notropis girardi</i> | Fish |
| 43 | Piping Plover | <i>Charadrius melodus</i> | Bird |
| 42 | Hubricht's Long-tailed Amphipod | <i>Alloclangonyx hubrichti</i> | Invertebrate - other |
| 42 | Texas Frosted Elfin | <i>Callophrys irus hadros</i> | Insect |
| 42 | American Burying Beetle | <i>Nicrophorus americanus</i> | Insect |
| 38 | Isopod | <i>Caecidotea dimorpha</i> | Invertebrate - other |
| 38 | Pyramid Pigtoe | <i>Pleurobema rubrum</i> | Mussel |
| 33 | Henslow's Sparrow | <i>Ammodramus henslowii</i> | Bird |
| 33 | Sprague's Pipit | <i>Anthus spragueii</i> | Bird |
| 33 | Little Brown Bat | <i>Myotis lucifugus</i> | Mammal |
| 33 | Bachman's Sparrow | <i>Peucaea aestivalis</i> | Bird |
| 33 | King Rail | <i>Rallus elegans</i> | Bird |
| 33 | Purple Lilliput | <i>Toxolasma lividum</i> | Mussel |
| 32 | Dukes' Skipper | <i>Euphyes dukesi</i> | Insect |
| 32 | Prairie Mole Cricket | <i>Gryllotalpa major</i> | Insect |
| 31 | Interior Least Tern | <i>Sternula antillarum athalassos</i> | Bird |
| 30 | Isopod | <i>Lirceus bicuspidatus</i> | Invertebrate - other |
| 29 | Buff-breasted Sandpiper | <i>Calidris subruficollis</i> | Bird |
| 29 | Rafinesque's Big-Eared Bat | <i>Corynorhinus rafinesquii</i> | Mammal |
| 29 | Mottled Duskywing | <i>Erynnis martialis</i> | Insect |
| 29 | Rusty Blackbird | <i>Euphagus carolinus</i> | Bird |
| 29 | Meske's Skipper | <i>Hesperia meskei</i> | Insect |

| | | | |
|----|------------------------------|---------------------------------|-----------|
| 29 | Queensnake | <i>Regina septemvittata</i> | Reptile |
| 29 | Bewick's Wren | <i>Thryomanes bewickii</i> | Bird |
| 27 | Lace-winged Roadside-Skipper | <i>Amblyscirtes aesculapius</i> | Insect |
| 27 | Alligator Gar | <i>Atractosteus spatula</i> | Fish |
| 27 | Plains Minnow | <i>Hybognathus placitus</i> | Fish |
| 27 | Eastern Small-Footed Bat | <i>Myotis leibii</i> | Mammal |
| 27 | Longnose Darter | <i>Percina nasuta</i> | Fish |
| 27 | King's Hairstreak | <i>Satyrium kingi</i> | Insect |
| 25 | Tiger Beetle | <i>Cicindela lepida</i> | Insect |
| 25 | Giant Stag Beetle | <i>Lucanus elaphus</i> | Insect |
| 25 | Diana | <i>Speyeria diana</i> | Insect |
| 24 | American Eel | <i>Anguilla rostrata</i> | Fish |
| 24 | Ruddy Turnstone | <i>Arenaria interpres</i> | Bird |
| 24 | Smith's Longspur | <i>Calcarius pictus</i> | Bird |
| 24 | Common Nighthawk | <i>Chordeiles minor</i> | Bird |
| 24 | Eastern Collared Lizard | <i>Crotaphytus collaris</i> | Reptile |
| 24 | Migrant Loggerhead Shrike | <i>Lanius ludovicianus</i> | Bird |
| 24 | Southeastern Bat | <i>Myotis austroriparius</i> | Mammal |
| 24 | Yellow-crowned Night-Heron | <i>Nyctanassa violacea</i> | Bird |
| 24 | Black-bellied Plover | <i>Pluvialis squatarola</i> | Bird |
| 24 | Paddlefish | <i>Polyodon spathula</i> | Fish |
| 24 | American Woodcock | <i>Scolopax minor</i> | Bird |
| 24 | Cerulean Warbler | <i>Setophaga cerulea</i> | Bird |
| 23 | Lace Bug | <i>Acalypta susanae</i> | Insect |
| 23 | Rufous-crowned Sparrow | <i>Aimophila ruficeps</i> | Bird |
| 23 | American Bittern | <i>Botaurus lentiginosus</i> | Bird |
| 23 | Northern Metalmark | <i>Calephelis borealis</i> | Insect |
| 23 | Outis Skipper | <i>Cogia outis</i> | Insect |
| 23 | Blue Sucker | <i>Cycleptus elongatus</i> | Fish |
| 23 | Bluntnose Shiner | <i>Cyprinella camura</i> | Fish |
| 23 | Beetle | <i>Derops divalis</i> | Insect |
| 23 | Willow Flycatcher | <i>Empidonax traillii</i> | Bird |
| 23 | Oklahoma Salamander | <i>Eurycea tynerensis</i> | Amphibian |
| 23 | Crawfish Frog | <i>Lithobates areolatus</i> | Amphibian |
| 23 | Suckermouth Minnow | <i>Phenacobius mirabilis</i> | Fish |
| 23 | Great Plains Skink | <i>Plestiodon obsoletus</i> | Reptile |
| 23 | Yehl Skipper | <i>Poanes yehl</i> | Insect |
| 23 | Purple Gallinule | <i>Porphyrio martinicus</i> | Bird |
| 23 | Byssus Skipper | <i>Problema byssus</i> | Insect |
| 23 | Ouachita Pseudactium | <i>Pseudactium magazinensis</i> | Insect |
| 23 | Ground Beetle | <i>Scaphinotus parisiana</i> | Insect |
| 23 | Plains Spadefoot | <i>Spea bombifrons</i> | Amphibian |
| 23 | Bleedingtooth Mussel | <i>Venustaconcha pleasii</i> | Mussel |
| 21 | Le Conte's Sparrow | <i>Ammodramus leconteii</i> | Bird |
| 21 | Bell's Roadside-Skipper | <i>Amblyscirtes belli</i> | Insect |
| 21 | Ant-like Tiger Beetle | <i>Cicindela cursitans</i> | Insect |

| | | | |
|----|-------------------------------|-----------------------------------|-----------|
| 21 | Woodland Tiger Beetle | <i>Cicindela unipunctata</i> | Insect |
| 21 | Sedge Wren | <i>Cistothorus platensis</i> | Bird |
| 21 | Black-tailed Jackrabbit | <i>Lepus californicus</i> | Mammal |
| 21 | Eastern Spotted Skunk | <i>Spilogale putorius</i> | Mammal |
| 21 | Red Milkweed Beetle | <i>Tetraopes quinquemaculatus</i> | Insect |
| 21 | Texas Milkweed Beetle | <i>Tetraopes texanus</i> | Insect |
| 19 | Lace Bug | <i>Acalypta lillianus</i> | Insect |
| 19 | Sharp-shinned Hawk | <i>Accipiter striatus</i> | Bird |
| 19 | Elktoe | <i>Alasmidonta marginata</i> | Mussel |
| 19 | Ringed Salamander | <i>Ambystoma annulatum</i> | Amphibian |
| 19 | Brown Bullhead | <i>Ameiurus nebulosus</i> | Fish |
| 19 | Grasshopper Sparrow | <i>Ammodramus savannarum</i> | Bird |
| 19 | American Black Duck | <i>Anas rubripes</i> | Bird |
| 19 | Anhinga | <i>Anhinga anhinga</i> | Bird |
| 19 | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | Bird |
| 19 | Sanderling | <i>Calidris alba</i> | Bird |
| 19 | Dunlin | <i>Calidris alpina</i> | Bird |
| 19 | Stilt Sandpiper | <i>Calidris himantopus</i> | Bird |
| 19 | Chimney Swift | <i>Chaetura pelagica</i> | Bird |
| 19 | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | Bird |
| 19 | Northern Bobwhite | <i>Colinus virginianus</i> | Bird |
| 19 | Chicken Turtle | <i>Deirochelys reticularia</i> | Reptile |
| 19 | Tricolored Heron | <i>Egretta tricolor</i> | Bird |
| 19 | Autumn Darter | <i>Etheostoma autumnale</i> | Fish |
| 19 | Sunburst Darter | <i>Etheostoma mihileze</i> | Fish |
| 19 | Dion Skipper | <i>Euphyes dion</i> | Insect |
| 19 | American Kestrel | <i>Falco sparverius</i> | Bird |
| 19 | Common Gallinule | <i>Gallinula galeata</i> | Bird |
| 19 | Great Plains Narrowmouth Toad | <i>Gastrophryne olivacea</i> | Amphibian |
| 19 | Purple Finch | <i>Haemorhous purpureus</i> | Bird |
| 19 | Leonard's Skipper | <i>Hesperia leonardus</i> | Insect |
| 19 | Cobweb Skipper | <i>Hesperia metea</i> | Insect |
| 19 | Goldeye | <i>Hiodon alosoides</i> | Fish |
| 19 | Mooneye | <i>Hiodon tergisus</i> | Fish |
| 19 | Wood Thrush | <i>Hylocichla mustelina</i> | Bird |
| 19 | Least Bittern | <i>Ixobrychus exilis</i> | Bird |
| 19 | Short-billed Dowitcher | <i>Limnodromus griseus</i> | Bird |
| 19 | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | Bird |
| 19 | Pealip Redhorse | <i>Moxostoma pisolabrum</i> | Fish |
| 19 | Striped Mullet | <i>Mugil cephalus</i> | Fish |
| 19 | Crawford's Gray Shrew | <i>Notiosorex crawfordi</i> | Mammal |
| 19 | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | Bird |
| 19 | Small-eyed Mold Beetle | <i>Ouachitychus parvoculus</i> | Insect |
| 19 | Slenderhead Darter | <i>Percina phoxocephala</i> | Fish |
| 19 | Prairie Skink | <i>Plestiodon septentrionalis</i> | Reptile |
| 19 | Gray Comma | <i>Polygonia progne</i> | Insect |
| 19 | Bismark Burrowing Crayfish | <i>Procambarus parasimulans</i> | Crayfish |

| | | | |
|----|-----------------------------|--|-----------|
| 19 | Strecker's Chorus Frog | <i>Pseudacris streckeri</i> | Amphibian |
| 19 | Graham's Crayfish Snake | <i>Regina grahamii</i> | Reptile |
| 19 | Eastern Harvest Mouse | <i>Reithrodontomys humulis</i> | Mammal |
| 19 | Oak Hairstreak | <i>Satyrium favonius ontario</i> | Insect |
| 19 | Hurter's Spadefoot | <i>Scaphiopus hurterii</i> | Amphibian |
| 19 | Southeastern Shrew | <i>Sorex longirostris</i> | Mammal |
| 19 | Ornate Box Turtle | <i>Terrapene ornata</i> | Reptile |
| 19 | Lilliput | <i>Toxolasma parvum</i> | Mussel |
| 19 | Bell's Vireo | <i>Vireo bellii</i> | Bird |
| 17 | Highfin Carpsucker | <i>Carpionodes velifer</i> | Fish |
| 17 | Big Sand Tiger Beetle | <i>Cicindela formosa pigmentosignata</i> | Insect |
| 17 | Beach-dune Tiger Beetle | <i>Cicindela hirticollis</i> | Insect |
| 17 | Sandy Stream Tiger Beetle | <i>Cicindela macra</i> | Insect |
| 17 | Western Diamond-backed | <i>Crotalus atrox</i> | Reptile |
| 17 | Trumpeter Swan | <i>Cygnus buccinator</i> | Bird |
| 17 | Round Pigtoe | <i>Pleurobema sintoxia</i> | Mussel |
| 17 | Little Spectaclecase group | <i>Villosa sp. cf lienosa</i> | Mussel |
| 16 | Gray Bat | <i>Myotis grisescens</i> | Mammal |
| 16 | American Badger | <i>Taxidea taxus</i> | Mammal |
| 15 | Gorgone Checkerspot | <i>Chlosyne gorgone</i> | Insect |
| 15 | Monarch | <i>Danaus plexippus</i> | Insect |
| 15 | Lake Chubsucker | <i>Erimyzon sucetta</i> | Fish |
| 15 | Highland Darter | <i>Etheostoma teddyroosevelt</i> | Fish |
| 15 | Bird-voiced Treefrog | <i>Hyla avivoca</i> | Amphibian |
| 15 | "Arkoma" Fatmucket | <i>Lampsilis sp. A cf hydiana</i> | Mussel |
| 15 | Glossy Swampsnake | <i>Liodytes rigida</i> | Reptile |
| 15 | Shoal Chub | <i>Macrhybopsis hyostoma</i> | Fish |
| 15 | Long-tailed Weasel | <i>Mustela frenata</i> | Mammal |
| 15 | Slender Glass Lizard | <i>Ophisaurus attenuatus</i> | Reptile |
| 15 | Saddleback Darter | <i>Percina vigil</i> | Fish |
| 15 | American Golden-Plover | <i>Pluvialis dominica</i> | Bird |
| 15 | Fawnsfoot | <i>Truncilla donaciformis</i> | Mussel |
| 13 | Twelve-spotted Tiger Beetle | <i>Cicindela duodecimguttata</i> | Insect |

Habitats that occur in the Arkansas Valley

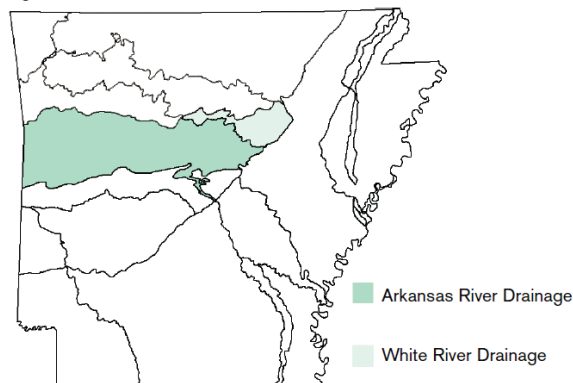
Of the 37 terrestrial habitats in Arkansas, 20 occur in the Arkansas Valley ecoregion (Table 3.14). Of 18 ecobasins in Arkansas, two occur in the Arkansas Valley ecoregion (Figure 3.11). These associations are described in the Section 4. Terrestrial Habitats, pages 1188-1575 and Section 5. Aquatic Habitats, pages 1576-1612.

Table 3.14. Terrestrial Habitats in the Arkansas Valley

Habitat Name

Caves, Mines, Sinkholes, and other Karst Habitat
Crop Land
Cultivated Forest
Herbaceous Wetland
Interior Highlands Dry Acidic Glade and Barrens
Mud Flats
Ouachita Montane Oak Forest
Ozark-Ouachita Cliff and Talus
Ozark-Ouachita Dry Oak and Pine Woodland
Ozark-Ouachita Dry-Mesic Oak Forest
Ozark-Ouachita Forested Seep
Ozark-Ouachita Large Floodplain
Ozark-Ouachita Mesic Hardwood Forest
Ozark-Ouachita Prairie and Woodland
Ozark-Ouachita Pine/Bluestem Woodland
Ozark-Ouachita Pine-Oak Forest/Woodland
Ozark-Ouachita Riparian
Pasture Land
Ponds, Lakes, and Water Holes
Urban/Suburban

Figure 3.11. Ecobasin Distribution in the Arkansas Valley



Problems faced by Species of Greatest Conservation Need (SGCN)

Taxa association teams listed problems faced by SGCN individually in the Species Reports, pages 44-1113. A summary of the problems faced by SGCN in the Arkansas Valley is presented below. Each problem has a score which is a sum of all Species Priority Scores associated with species for which this problem was assigned. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species associated with problems listed here.

Table 3.15. Problems faced by SGCN in the Arkansas Valley.

| Problem faced | Score |
|--|-------|
| Agricultural practices | 1895 |
| Forestry activities | 1815 |
| Dam | 1237 |
| Urban development | 1092 |
| Grazing/Browsing | 722 |
| Resource extraction | 688 |
| Fire suppression | 654 |
| Recreation | 516 |
| Conversion of riparian forest | 427 |
| Water diversion | 339 |
| Road construction | 326 |
| Channel alteration | 315 |
| Commercial/industrial development | 303 |
| Confined animal operations | 270 |
| Channel maintenance | 267 |
| Parasites/pathogens | 266 |
| Exotic species | 234 |
| Predation | 170 |
| Municipal/Industrial point source | 152 |
| Commercial harvest | 150 |
| Excessive groundwater withdrawal | 140 |
| Management of/for certain species | 103 |
| Non-point source pollution | 82 |
| unknown | 52 |
| Interspecific competition | 48 |
| Excessive non-commercial harvest or collection | 24 |

Conservation actions needed in the Arkansas Valley

Descriptions of conservation actions linked to individual species on the list of SGCN are presented in the Species Reports, pages 41-1113. Below are categories of conservation actions recommended by the taxa association teams (Figure 3.12). An explanation of the categories follows in Table 3.16.

The score associated with the conservation action category is the sum of all priority scores associated with species for which a conservation action has been assigned, weighted by the importance of the conservation action category to the species. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species would be affected by actions within this conservation action category.

These scores may be used as guides to directing the apportionment of funding toward conservation actions benefiting habitats and species of greatest conservation need.

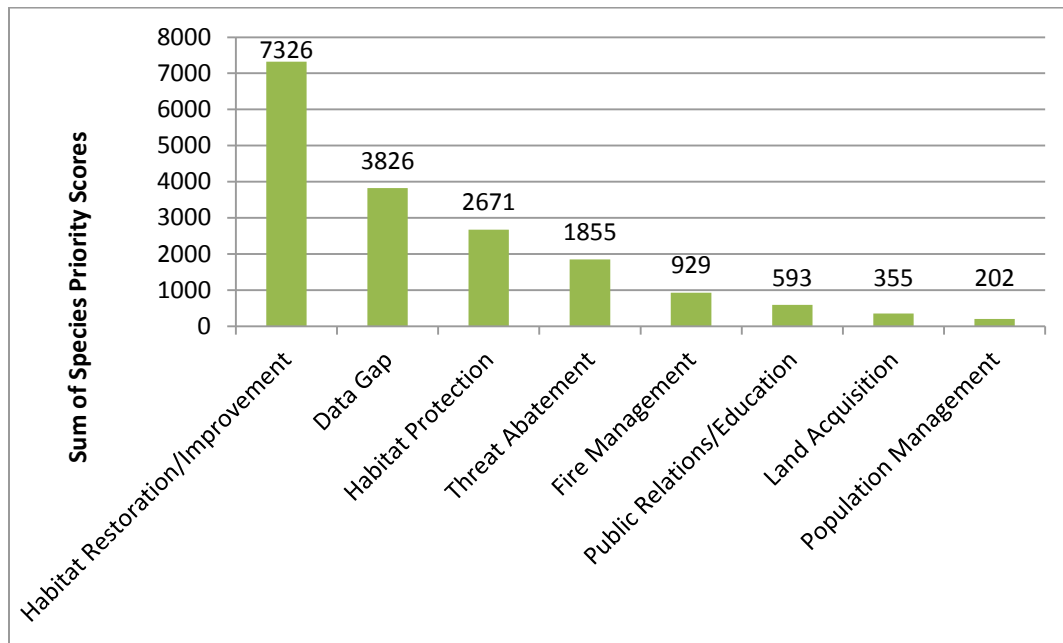


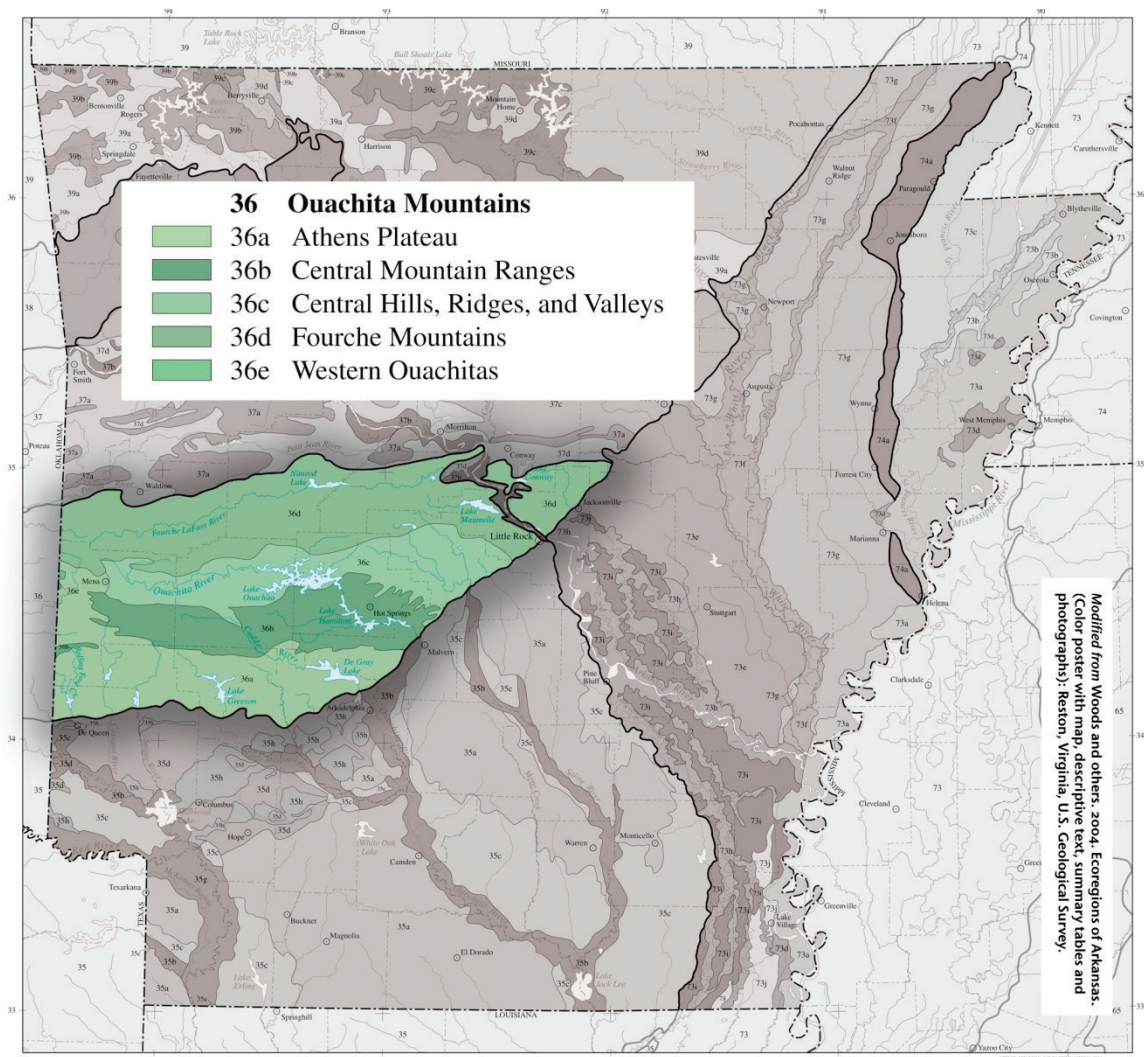
Figure 3.12. Conservation action categories recommended for the Arkansas Valley.

Ouachita Mountains (Ecoregion 36)

The Ouachitas are made up of ridges, hills and valleys formed by the erosion of folded and faulted Paleozoic sandstone, shale and chert, known locally as novaculite. They are a continuation of the Appalachians, formed during the late Paleozoic Era when an ocean closed and continents collided, causing marine sediments to be folded, faulted and thrust northward. The Ouachitas are structurally different from the Boston Mountains (38), more folded and rugged than the lithologically distinct Ozark Highlands (39) and physiographically unlike the Arkansas Valley (37), South Central Plains (35) and Mississippi Alluvial Plain (73).

Potential natural vegetation is oak–hickory–pine forest; it contrasts with the oak–hickory forest that dominates Ecoregion 39 and the northern part of Ecoregion 38. Today, loblolly pine and shortleaf pine grow in a distinctive mix of thermic Ultisols and Inceptisols.

Figure 3.13. Ouachita Mountains ecoregion.





Athens Plateau - Ouachita Mountains

Logging and recreation are major land uses and pastureland and hayland are found in broader valleys.

Regional water quality is influenced by lithology, soil composition and land use activities. In most reaches, water quality is exceptional; typically, total phosphorus, turbidity, total suspended solids and biological oxygen demand values are lower whereas dissolved oxygen levels are higher than in Ecoregions 35, 37 and 73. Water hardness varies by level IV ecoregion; Ecoregions 36d and 36e tend to have the lowest hardness values while progressively higher values occur in Ecoregions 36a, 36b and 36c. Stream substrates are made up of gravel, cobbles, boulders, or bedrock; they contrast with the fine-grained substrates of lower gradient streams in Ecoregions 35 and 73.

The fish community is dominated by sensitive species; minnows and sunfish along with darters and bass are common.

Athens Plateau

36a. The low ridges and hills of the Athens Plateau are widely underlain by shale in contrast to other parts of Ecoregion 36. Rocks are less resistant to erosion than in higher, more rugged Ecoregions 36b, 36d and 36e but are more resistant than the unconsolidated rocks of the coastal plain in Ecoregion 35.

Ouachita Mountains Ecoregion

Today, pine plantations are widespread; they are far more extensive than in the more rugged parts of Ecoregion 36 in Arkansas. Pastureland and hayland also occur. Cattle and broiler chickens are important farm products. Water quality values are distinct from Ecoregion 36c.

Central Mountain Ranges

36b. The Central Mountain Ranges are dominated by east-west trending ridges that are characteristically steep and rugged and underlain by resistant sandstone and novaculite (chert). Igneous intrusions occur along with associated hot springs. Rock outcrops and shallow, stony soils are widespread. Novaculite glades occur.

Potential natural vegetation is oak–hickory– pine forest. Perennial springs and seeps are common and support diverse vegetation. Constricted valleys between ridges have waterfalls and rapids. The surface waters of Ecoregion 36b have very low nutrient, mineral and biochemical water quality parameter concentrations and turbidity. Logging is not nearly as common as in the less rugged Athens Plateau (36a).

Central Hills, Ridges and Valleys

36c. The Central Hills, Ridges and Valleys ecoregion is lower, less rugged and more open than neighboring Ecoregions 36b and 36d. Ecoregion 36c is underlain by folded and faulted sandstone, shale and novaculite (chert); the lithologic mosaic is distinct from the Athens Plateau (36a).

Its forests are codominated by loblolly pine–shortleaf pine and upland oak–hickory–pine forest types. Pastureland is also common, much more so than in Ecoregions 36b and 36d.

Fourche Mountains

36d. The Fourche Mountains are the archetypal Ouachita Mountains. Ecoregion 36d is composed of long, east-west trending, forested ridges composed of sand- stone. Intervening valleys are cut into shale. Ridges are longer, habitat continuity is greater, the lithologic mosaic is different and the topographic orientation is more consistent than in other parts of the Ouachita Mountains (36).

Differences in moisture and temperature between north- and south-facing slopes significantly influence native plant communities; they are products of the prevailing topographic trend. Forests on steep, north-facing slopes are more mesic than on southern aspects; grassy woodlands are found on steepest, south-facing slopes.

Pastureland and hayland are restricted to a few broad valleys. Logging is not nearly as intensive as in the commercial pine plantations of the less rugged Athens Plateau.

Nutrient, mineral and biochemical water quality parameter concentrations are low in the surface waters of Ecoregion 36d but turbidity can be higher than in other mountainous parts of the Ouachitas.

Western Ouachitas

36e. The Western Ouachitas ecoregion is composed of mountains, hills and narrow valleys. In Arkansas, Ecoregion 36e is confined to Round Mountain in western Polk County, where it is underlain by sandstone and shale; novaculite (chert) is absent in contrast to the Central Mountain Ranges (36b). Ridgetop elevations exceed 2,300 feet in Arkansas; both elevation and precipitation decrease westward into Oklahoma. Ecoregion 36e in Arkansas is higher and more rugged than the lithologically distinct Athens Plateau (36a).

Today, pine and upland oak–hickory–pine forest types codominate. Ecoregion 36e in Arkansas and Oklahoma contains, perhaps, the greatest concentration of critically-imperiled and imperiled species in mid-North America (adapted from Woods and others 2004).

Ouachita Mountains Ecoregion:

Species of Greatest Conservation Need (SGCN)

Species of greatest conservation need (SGCN) in the Ouachita Mountains are presented by taxa association (Table 3.17). A higher priority score indicates a greater need for actions to conserve the species. A ranked list of all SGCN associated with the ecoregion is presented in Table 3.18.

Table 3.17. SGCN by taxa association in the Ouachita Mountains ecoregion.

| Taxa Association | Common Name | Scientific Name | Priority Score |
|-------------------------|-----------------------------|------------------------------|-----------------------|
| Amphibian | Kiamichi Slimy Salamander | <i>Plethodon kiamichi</i> | 50 |
| | Sequoyah Slimy Salamander | <i>Plethodon sequoyah</i> | 50 |
| | Caddo Mountain Salamander | <i>Plethodon caddoensis</i> | 46 |
| | Fourche Mountain Salamander | <i>Plethodon fourchensis</i> | 46 |
| | Rich Mountain Salamander | <i>Plethodon ouachitae</i> | 38 |

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|------|-------------------------------|--------------------------------|----|
| | Ouachita Streambed Salamander | <i>Eurycea subfluvicola</i> | 23 |
| | Crawfish Frog | <i>Lithobates areolatus</i> | 23 |
| | Ringed Salamander | <i>Ambystoma annulatum</i> | 19 |
| | Four-toed Salamander | <i>Hemidactylium scutatum</i> | 19 |
| | Hurter's Spadefoot | <i>Scaphiopus hurterii</i> | 19 |
| | Mole Salamander | <i>Ambystoma talpoideum</i> | 15 |
| | Bird-voiced Treefrog | <i>Hyla avivoca</i> | 15 |
| Bird | Piping Plover | <i>Charadrius melodus</i> | 43 |
| | Red-cockaded Woodpecker | <i>Picoides borealis</i> | 43 |
| | Sprague's Pipit | <i>Anthus spragueii</i> | 33 |
| | Bachman's Sparrow | <i>Peucaea aestivalis</i> | 33 |
| | Buff-breasted Sandpiper | <i>Calidris subruficollis</i> | 29 |
| | Rusty Blackbird | <i>Euphagus carolinus</i> | 29 |
| | Bewick's Wren | <i>Thryomanes bewickii</i> | 29 |
| | Ruddy Turnstone | <i>Arenaria interpres</i> | 24 |
| | Smith's Longspur | <i>Calcarius pictus</i> | 24 |
| | Common Nighthawk | <i>Chordeiles minor</i> | 24 |
| | Migrant Loggerhead Shrike | <i>Lanius ludovicianus</i> | 24 |
| | Yellow-crowned Night-Heron | <i>Nyctanassa violacea</i> | 24 |
| | Black-bellied Plover | <i>Pluvialis squatarola</i> | 24 |
| | American Woodcock | <i>Scolopax minor</i> | 24 |
| | Cerulean Warbler | <i>Setophaga cerulea</i> | 24 |
| | Rufous-crowned Sparrow | <i>Aimophila ruficeps</i> | 23 |
| | American Bittern | <i>Botaurus lentiginosus</i> | 23 |
| | Willow Flycatcher | <i>Empidonax traillii</i> | 23 |
| | Purple Gallinule | <i>Porphyrio martinicus</i> | 23 |
| | Le Conte's Sparrow | <i>Ammodramus leconteii</i> | 21 |
| | Sedge Wren | <i>Cistothorus platensis</i> | 21 |
| | Sharp-shinned Hawk | <i>Accipiter striatus</i> | 19 |
| | Grasshopper Sparrow | <i>Ammodramus savannarum</i> | 19 |
| | Anhinga | <i>Anhinga anhinga</i> | 19 |
| | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | 19 |
| | Sanderling | <i>Calidris alba</i> | 19 |
| | Dunlin | <i>Calidris alpina</i> | 19 |
| | Stilt Sandpiper | <i>Calidris himantopus</i> | 19 |
| | Chimney Swift | <i>Chaetura pelagica</i> | 19 |
| | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | 19 |
| | Northern Bobwhite | <i>Colinus virginianus</i> | 19 |
| | American Kestrel | <i>Falco sparverius</i> | 19 |
| | Purple Finch | <i>Haemorhous purpureus</i> | 19 |
| | Wood Thrush | <i>Hylocichla mustelina</i> | 19 |
| | Least Bittern | <i>Ixobrychus exilis</i> | 19 |
| | Short-billed Dowitcher | <i>Limnodromus griseus</i> | 19 |
| | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | 19 |
| | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | 19 |
| | Bell's Vireo | <i>Vireo bellii</i> | 19 |

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|----------|-------------------------------|----------------------------------|----|
| | Trumpeter Swan | <i>Cygnus buccinator</i> | 17 |
| | American Golden-Plover | <i>Pluvialis dominica</i> | 15 |
| Crayfish | Irons Fork Burrowing Crayfish | <i>Procambarus reimeri</i> | 80 |
| | Saline Burrowing Crayfish | <i>Fallicambarus strawni</i> | 65 |
| | Ouachita Burrowing Crayfish | <i>Fallicambarus harpi</i> | 46 |
| | Daisy Burrowing Crayfish | <i>Fallicambarus jeanae</i> | 46 |
| | Ouachita Mountain Crayfish | <i>Procambarus tenuis</i> | 30 |
| | Mena Crayfish | <i>Orconectes menae</i> | 27 |
| | Redspotted Stream Crayfish | <i>Orconectes acares</i> | 19 |
| | Little River Creek Crayfish | <i>Orconectes leptogonopodus</i> | 19 |
| | Bismark Burrowing Crayfish | <i>Procambarus parasimulans</i> | 19 |
| Fish | Caddo Madtom | <i>Noturus taylori</i> | 80 |
| | Leopard Darter | <i>Percina pantherina</i> | 62 |
| | Alabama Shad | <i>Alosa alabamae</i> | 52 |
| | Paleback Darter | <i>Etheostoma pallidorsum</i> | 46 |
| | Ouachita Madtom | <i>Noturus lachneri</i> | 46 |
| | Ouachita Darter | <i>Percina brucethompsoni</i> | 46 |
| | Crystal Darter | <i>Crystallaria asprella</i> | 38 |
| | Stargazing Darter | <i>Percina uranidea</i> | 38 |
| | Kiamichi Shiner | <i>Notropis ortenburgeri</i> | 33 |
| | Peppered Shiner | <i>Notropis perpallidus</i> | 33 |
| | Ouachita Shiner | <i>Lythrurus snelsoni</i> | 27 |
| | Rocky Shiner | <i>Notropis suttkusi</i> | 27 |
| | Longnose Darter | <i>Percina nasuta</i> | 27 |
| | American Eel | <i>Anguilla rostrata</i> | 24 |
| | Paddlefish | <i>Polyodon spathula</i> | 24 |
| | Blue Sucker | <i>Cycleptus elongatus</i> | 23 |
| | Lowland Topminnow | <i>Fundulus blairae</i> | 23 |
| | Suckermouth Minnow | <i>Phenacobius mirabilis</i> | 23 |
| | Brown Bullhead | <i>Ameiurus nebulosus</i> | 19 |
| | Beaded Darter | <i>Etheostoma clinton</i> | 19 |
| | Redspot Chub | <i>Nocomis asper</i> | 19 |
| | Saddleback Darter | <i>Percina vigil</i> | 15 |
| Insect | Caddo Sallfly | <i>Alloperla caddo</i> | 65 |
| | Ouachita Spiketail | <i>Cordulegaster talaria</i> | 65 |
| | Rattlesnake-Master Borer Moth | <i>Papaipema eryngii</i> | 65 |
| | Microcaddisfly | <i>Ochrotrichia robisoni</i> | 57 |
| | Arkansas Agapetus Caddisfly | <i>Agapetus medicus</i> | 50 |
| | Texas Frosted Elfin | <i>Callophrys irus hadros</i> | 42 |
| | American Burying Beetle | <i>Nicrophorus americanus</i> | 42 |
| | Linda's Roadside-Skipper | <i>Amblyscirtes linda</i> | 38 |
| | Indiana Phlox Moth | <i>Schinia indiana</i> | 38 |
| | Ozark Emerald | <i>Somatochlora ozarkensis</i> | 34 |
| | Ozark Snaketail Dragonfly | <i>Ophiogomphus westfalli</i> | 32 |
| | Mottled Duskywing | <i>Erynnis martialis</i> | 29 |
| | Meske's Skipper | <i>Hesperia meskei</i> | 29 |

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|----------------------|------------------------------|----------------------------------|----|
| | Lace-winged Roadside-Skipper | <i>Amblyscirtes aesculapius</i> | 27 |
| | Appalachian Azure | <i>Celastrina neglectamajor</i> | 27 |
| | Ozark Clubtail Dragonfly | <i>Gomphus ozarkensis</i> | 27 |
| | Giant Stag Beetle | <i>Lucanus elaphus</i> | 25 |
| | Diana | <i>Speyeria diana</i> | 25 |
| | Copeland's Mold Beetle | <i>Arianops copelandi</i> | 23 |
| | Northern Metalmark Beetle | <i>Calephelis borealis</i> | 23 |
| | Ouachita Shore Bug | <i>Pentacora ouachita</i> | 23 |
| | Yehl Skipper | <i>Poanes yehl</i> | 23 |
| | Byssus Skipper | <i>Problema byssus</i> | 23 |
| | Ouachita Pseudactium | <i>Pseudactium magazinensis</i> | 23 |
| | Bell's Roadside-Skipper | <i>Amblyscirtes belli</i> | 21 |
| | Golden-banded Skipper | <i>Autochton cellus</i> | 21 |
| | Six-banded Longhorn Beetle | <i>Dryobius sexnotatus</i> | 19 |
| | Dion Skipper | <i>Euphyes dion</i> | 19 |
| | Leonard's Skipper | <i>Hesperia leonardus</i> | 19 |
| | Cobweb Skipper | <i>Hesperia metea</i> | 19 |
| | Ouachita Diving Beetle | <i>Heterosternuta ouachita</i> | 19 |
| | Small-eyed Mold Beetle | <i>Ouachitychus parvocolus</i> | 19 |
| | Gray Comma | <i>Polygonia progne</i> | 19 |
| | Oak Hairstreak | <i>Satyrium favonius ontario</i> | 19 |
| | Sandy Stream Tiger Beetle | <i>Cicindela macra</i> | 17 |
| | Gorgone Checkerspot | <i>Chlosyne gorgone</i> | 15 |
| | Monarch | <i>Danaus plexippus</i> | 15 |
| | Broad-winged Skipper | <i>Poanes viator</i> | 15 |
| | Twelve-spotted Tiger Beetle | <i>Cicindela duodecimguttata</i> | 13 |
| Invertebrate - other | Mountain Cave Amphipod | <i>Stygobromus montanus</i> | 65 |
| | Ouachita Needlefly | <i>Zealeuctra wachita</i> | 50 |
| | Rich Mountain Slitmouth | <i>Stenotrema pilsbryi</i> | 46 |
| | Ouachita Slitmouth | <i>Stenotrema unciferum</i> | 34 |
| | Isopod | <i>Lirceus bicuspidatus</i> | 30 |
| | Millipede | <i>Abacion wilhelminae</i> | 23 |
| | Isopod | <i>Caecidotea fonticulus</i> | 23 |
| | Earthworm | <i>Diplocardia mansi</i> | 17 |
| Mammal | Northern Long-eared Bat | <i>Myotis septentrionalis</i> | 63 |
| | Eastern Small-Footed Bat | <i>Myotis leibii</i> | 34 |
| | Little Brown Bat | <i>Myotis lucifugus</i> | 33 |
| | Rafinesque's Big-Eared Bat | <i>Corynorhinus rafinesquii</i> | 29 |
| | Southeastern Bat | <i>Myotis austroriparius</i> | 24 |
| | Eastern Spotted Skunk | <i>Spilogale putorius</i> | 21 |
| | Crawford's Gray Shrew | <i>Notiosorex crawfordi</i> | 19 |
| | Southeastern Shrew | <i>Sorex longirostris</i> | 19 |
| | Long-tailed Weasel | <i>Mustela frenata</i> | 15 |
| Mussel | Scaleshell | <i>Leptodea leptodon</i> | 76 |

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|---------|----------------------------|---------------------------------------|----|
| | Arkansas Fatmucket | <i>Lampsilis powellii</i> | 57 |
| | Rabbitsfoot | <i>Quadrula cylindrica cylindrica</i> | 52 |
| | "Ouachita" Fanshell | <i>Cyprogenia sp. cf aberti</i> | 43 |
| | Spectaclecase | <i>Cumberlandia monodonta</i> | 38 |
| | Pyramid Pigtoe | <i>Pleurobema rubrum</i> | 38 |
| | Purple Lilliput | <i>Toxolasma lividum</i> | 33 |
| | Ouachita Kidneyshell | <i>Ptychobranhus occidentalis</i> | 23 |
| | Elktoe | <i>Alasmidonta marginata</i> | 19 |
| | Southern Pocketbook | <i>Lampsilis ornata</i> | 19 |
| | Lilliput | <i>Toxolasma parvum</i> | 19 |
| | Texas Lilliput | <i>Toxolasma texasiense</i> | 19 |
| | Pondhorn | <i>Unio merus tetralasmus</i> | 19 |
| | Round Pigtoe | <i>Pleurobema sintoxia</i> | 17 |
| | Little Spectaclecase group | <i>Villosa sp. cf lienosa</i> | 17 |
| | "Arkoma" Fatmucket | <i>Lampsilis sp. A cf hydiana</i> | 15 |
| | Fawnsfoot | <i>Truncilla donaciformis</i> | 15 |
| Reptile | Eastern Collared Lizard | <i>Crotaphytus collaris</i> | 24 |
| | Great Plains Skink | <i>Plestiodon obsoletus</i> | 23 |
| | Chicken Turtle | <i>Deirochelys reticularia</i> | 19 |
| | Prairie Skink | <i>Plestiodon septentrionalis</i> | 19 |
| | Western Diamond-backed | <i>Crotalus atrox</i> | 17 |
| | Slender Glass Lizard | <i>Ophisaurus attenuatus</i> | 15 |

Table 3.18. Species of greatest conservation need (SGCN) in the Ouachita Mountains ranked by priority score. A higher priority score indicates a greater need for actions to conserve the species. Of the 377 SGCN, 164 occur in this ecoregion.

| Priority Score | Common Name | Scientific Name | Taxa Association |
|----------------|-------------------------------|---------------------------------------|----------------------|
| 80 | Caddo Madtom | <i>Noturus taylori</i> | Fish |
| 80 | Irons Fork Burrowing Crayfish | <i>Procambarus reimeri</i> | Crayfish |
| 76 | Scaleshell | <i>Leptodea leptodon</i> | Mussel |
| 65 | Caddo Sallfly | <i>Alloperla caddo</i> | Insect |
| 65 | Ouachita Spiketail | <i>Cordulegaster talaria</i> | Insect |
| 65 | Saline Burrowing Crayfish | <i>Fallicambarus strawni</i> | Crayfish |
| 65 | Rattlesnake-Master Borer Moth | <i>Papaipema eryngii</i> | Insect |
| 65 | Mountain Cave Amphipod | <i>Stygobromus montanus</i> | Invertebrate - other |
| 63 | Northern Long-eared Bat | <i>Myotis septentrionalis</i> | Mammal |
| 62 | Leopard Darter | <i>Percina pantherina</i> | Fish |
| 57 | Arkansas Fatmucket | <i>Lampsilis powellii</i> | Mussel |
| 57 | Microcaddisfly | <i>Ochrotrichia robisoni</i> | Insect |
| 52 | Alabama Shad | <i>Alosa alabamae</i> | Fish |
| 52 | Rabbitsfoot | <i>Quadrula cylindrica cylindrica</i> | Mussel |
| 50 | Arkansas Agapetus Caddisfly | <i>Agapetus medicus</i> | Insect |

| | | | |
|----|------------------------------|---------------------------------|----------------------|
| 50 | Kiamichi Slimy Salamander | <i>Plethodon kiamichi</i> | Amphibian |
| 50 | Sequoyah Slimy Salamander | <i>Plethodon sequoyah</i> | Amphibian |
| 50 | Ouachita Needlefly | <i>Zealeuctra wachita</i> | Invertebrate - other |
| 46 | Paleback Darter | <i>Etheostoma pallidorsum</i> | Fish |
| 46 | Ouachita Burrowing Crayfish | <i>Fallicambarus harpi</i> | Crayfish |
| 46 | Daisy Burrowing Crayfish | <i>Fallicambarus jeanae</i> | Crayfish |
| 46 | Ouachita Madtom | <i>Noturus lachneri</i> | Fish |
| 46 | Ouachita Darter | <i>Percina brucehompsoni</i> | Fish |
| 46 | Caddo Mountain Salamander | <i>Plethodon caddoensis</i> | Amphibian |
| 46 | Fourche Mountain Salamander | <i>Plethodon fourchensis</i> | Amphibian |
| 46 | Rich Mountain Slitmouth | <i>Stenotrema pilsbryi</i> | Invertebrate - other |
| 43 | Piping Plover | <i>Charadrius melodus</i> | Bird |
| 43 | "Ouachita" Fanshell | <i>Cyrogenia sp. cf aberti</i> | Mussel |
| 43 | Red-cockaded Woodpecker | <i>Picoides borealis</i> | Bird |
| 42 | Texas Frosted Elfin | <i>Callophrys irus hadros</i> | Insect |
| 42 | American Burying Beetle | <i>Nicrophorus americanus</i> | Insect |
| 38 | Linda's Roadside-Skipper | <i>Amblyscirtes linda</i> | Insect |
| 38 | Crystal Darter | <i>Crystallaria asprella</i> | Fish |
| 38 | Spectaclecase | <i>Cumberlandia monodonta</i> | Mussel |
| 38 | Stargazing Darter | <i>Percina uranidea</i> | Fish |
| 38 | Rich Mountain Salamander | <i>Plethodon ouachitae</i> | Amphibian |
| 38 | Pyramid Pigtoe | <i>Pleurobema rubrum</i> | Mussel |
| 38 | Indiana Phlox Moth | <i>Schinia indiana</i> | Insect |
| 34 | Ozark Emerald | <i>Somatochlora ozarkensis</i> | Insect |
| 34 | Ouachita Slitmouth | <i>Stenotrema unciferum</i> | Invertebrate - other |
| 33 | Sprague's Pipit | <i>Anthus spragueii</i> | Bird |
| 33 | Little Brown Bat | <i>Myotis lucifugus</i> | Mammal |
| 33 | Kiamichi Shiner | <i>Notropis ortenburgeri</i> | Fish |
| 33 | Peppered Shiner | <i>Notropis perpallidus</i> | Fish |
| 33 | Bachman's Sparrow | <i>Peucaea aestivalis</i> | Bird |
| 33 | Purple Lilliput | <i>Toxolasma lividum</i> | Mussel |
| 32 | Ozark Snaketail Dragonfly | <i>Ophiogomphus westfalli</i> | Insect |
| 30 | Isopod | <i>Lirceus bicuspidatus</i> | Invertebrate - other |
| 30 | Ouachita Mountain Crayfish | <i>Procambarus tenuis</i> | Crayfish |
| 29 | Buff-breasted Sandpiper | <i>Calidris subruficollis</i> | Bird |
| 29 | Rafinesque's Big-Eared Bat | <i>Corynorhinus rafinesquii</i> | Mammal |
| 29 | Mottled Duskywing | <i>Erynnis martialis</i> | Insect |
| 29 | Rusty Blackbird | <i>Euphagus carolinus</i> | Bird |
| 29 | Meske's Skipper | <i>Hesperia meskei</i> | Insect |
| 29 | Bewick's Wren | <i>Thryomanes bewickii</i> | Bird |
| 27 | Lace-winged Roadside-Skipper | <i>Amblyscirtes aesculapius</i> | Insect |
| 27 | Appalachian Azure | <i>Celastrina neglectamajor</i> | Insect |
| 27 | Ozark Clubtail Dragonfly | <i>Gomphus ozarkensis</i> | Insect |
| 27 | Ouachita Shiner | <i>Lythrurus snelsoni</i> | Fish |
| 27 | Eastern Small-Footed Bat | <i>Myotis leibii</i> | Mammal |
| 27 | Rocky Shiner | <i>Notropis suttkusi</i> | Fish |

| | | | |
|----|-------------------------------|-----------------------------------|----------------------|
| 27 | Mena Crayfish | <i>Orconectes menae</i> | Crayfish |
| 27 | Longnose Darter | <i>Percina nasuta</i> | Fish |
| 25 | Giant Stag Beetle | <i>Lucanus elaphus</i> | Insect |
| 25 | Diana | <i>Speyeria diana</i> | Insect |
| 24 | American Eel | <i>Anguilla rostrata</i> | Fish |
| 24 | Ruddy Turnstone | <i>Arenaria interpres</i> | Bird |
| 24 | Smith's Longspur | <i>Calcarius pictus</i> | Bird |
| 24 | Common Nighthawk | <i>Chordeiles minor</i> | Bird |
| 24 | Eastern Collared Lizard | <i>Crotaphytus collaris</i> | Reptile |
| 24 | Migrant Loggerhead Shrike | <i>Lanius ludovicianus</i> | Bird |
| 24 | Southeastern Bat | <i>Myotis austroriparius</i> | Mammal |
| 24 | Yellow-crowned Night-Heron | <i>Nyctanassa violacea</i> | Bird |
| 24 | Black-bellied Plover | <i>Pluvialis squatarola</i> | Bird |
| 24 | Paddlefish | <i>Polyodon spathula</i> | Fish |
| 24 | American Woodcock | <i>Scolopax minor</i> | Bird |
| 24 | Cerulean Warbler | <i>Setophaga cerulea</i> | Bird |
| 23 | Millipede | <i>Abacion wilhelminae</i> | Invertebrate - other |
| 23 | Rufous-crowned Sparrow | <i>Aimophila ruficeps</i> | Bird |
| 23 | Copeland's Mold Beetle | <i>Arianops copelandi</i> | Insect |
| 23 | American Bittern | <i>Botaurus lentiginosus</i> | Bird |
| 23 | Isopod | <i>Caecidotea fonticulus</i> | Invertebrate - other |
| 23 | Northern Metalmark | <i>Calephelis borealis</i> | Insect |
| 23 | Blue Sucker | <i>Cycleptus elongatus</i> | Fish |
| 23 | Beetle | <i>Derops divalis</i> | Insect |
| 23 | Willow Flycatcher | <i>Empidonax traillii</i> | Bird |
| 23 | Ouachita Streambed Salamander | <i>Eurycea subfluvicola</i> | Amphibian |
| 23 | Lowland Topminnow | <i>Fundulus blairae</i> | Fish |
| 23 | Crawfish Frog | <i>Lithobates areolatus</i> | Amphibian |
| 23 | Ouachita Shore Bug | <i>Pentacora ouachita</i> | Insect |
| 23 | Suckermouth Minnow | <i>Phenacobius mirabilis</i> | Fish |
| 23 | Great Plains Skink | <i>Plestiodon obsoletus</i> | Reptile |
| 23 | Yehl Skipper | <i>Poanes yehl</i> | Insect |
| 23 | Purple Gallinule | <i>Porphyrio martinicus</i> | Bird |
| 23 | Byssus Skipper | <i>Problema byssus</i> | Insect |
| 23 | Ouachita Pseudactium | <i>Pseudactium magazinensis</i> | Insect |
| 23 | Ouachita Kidneyshell | <i>Ptychobranhus occidentalis</i> | Mussel |
| 21 | Le Conte's Sparrow | <i>Ammodramus leconteii</i> | Bird |
| 21 | Bell's Roadside-Skipper | <i>Amblyscirtes belli</i> | Insect |
| 21 | Golden-banded Skipper | <i>Autochton cellus</i> | Insect |
| 21 | Sedge Wren | <i>Cistothorus platensis</i> | Bird |
| 21 | Eastern Spotted Skunk | <i>Spilogale putorius</i> | Mammal |
| 19 | Sharp-shinned Hawk | <i>Accipiter striatus</i> | Bird |
| 19 | Elktoe | <i>Alasmidonta marginata</i> | Mussel |
| 19 | Ringed Salamander | <i>Ambystoma annulatum</i> | Amphibian |
| 19 | Brown Bullhead | <i>Ameiurus nebulosus</i> | Fish |

| | | | |
|----|-----------------------------|-----------------------------------|----------------------|
| 19 | Grasshopper Sparrow | <i>Ammodramus savannarum</i> | Bird |
| 19 | Anhinga | <i>Anhinga anhinga</i> | Bird |
| 19 | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | Bird |
| 19 | Sanderling | <i>Calidris alba</i> | Bird |
| 19 | Dunlin | <i>Calidris alpina</i> | Bird |
| 19 | Stilt Sandpiper | <i>Calidris himantopus</i> | Bird |
| 19 | Chimney Swift | <i>Chaetura pelagica</i> | Bird |
| 19 | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | Bird |
| 19 | Northern Bobwhite | <i>Colinus virginianus</i> | Bird |
| 19 | Chicken Turtle | <i>Deirochelys reticularia</i> | Reptile |
| 19 | Six-banded Longhorn Beetle | <i>Dryobius sexnotatus</i> | Insect |
| 19 | Beaded Darter | <i>Etheostoma clinton</i> | Fish |
| 19 | Dion Skipper | <i>Euphyes dion</i> | Insect |
| 19 | American Kestrel | <i>Falco sparverius</i> | Bird |
| 19 | Purple Finch | <i>Haemorhous purpureus</i> | Bird |
| 19 | Four-toed Salamander | <i>Hemidactylium scutatum</i> | Amphibian |
| 19 | Leonard's Skipper | <i>Hesperia leonardus</i> | Insect |
| 19 | Cobweb Skipper | <i>Hesperia metea</i> | Insect |
| 19 | Ouachita Diving Beetle | <i>Heterosternuta ouachita</i> | Insect |
| 19 | Wood Thrush | <i>Hylocichla mustelina</i> | Bird |
| 19 | Least Bittern | <i>Ixobrychus exilis</i> | Bird |
| 19 | Southern Pocketbook | <i>Lampsilis ornata</i> | Mussel |
| 19 | Short-billed Dowitcher | <i>Limnodromus griseus</i> | Bird |
| 19 | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | Bird |
| 19 | Redspot Chub | <i>Nocomis asper</i> | Fish |
| 19 | Crawford's Gray Shrew | <i>Notiosorex crawfordi</i> | Mammal |
| 19 | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | Bird |
| 19 | Redspotted Stream Crayfish | <i>Orconectes acares</i> | Crayfish |
| 19 | Little River Creek Crayfish | <i>Orconectes leptogonopodus</i> | Crayfish |
| 19 | Small-eyed Mold Beetle | <i>Ouachitychus parvocolus</i> | Insect |
| 19 | Prairie Skink | <i>Plestiodon septentrionalis</i> | Reptile |
| 19 | Gray Comma | <i>Polygonia progne</i> | Insect |
| 19 | Bismark Burrowing Crayfish | <i>Procambarus parasimulans</i> | Crayfish |
| 19 | Oak Hairstreak | <i>Satyrium favonius ontario</i> | Insect |
| 19 | Hurter's Spadefoot | <i>Scaphiopus hurterii</i> | Amphibian |
| 19 | Southeastern Shrew | <i>Sorex longirostris</i> | Mammal |
| 19 | Lilliput | <i>Toxolasma parvum</i> | Mussel |
| 19 | Texas Lilliput | <i>Toxolasma texasiense</i> | Mussel |
| 19 | Pondhorn | <i>Uniomerus tetralasmus</i> | Mussel |
| 19 | Bell's Vireo | <i>Vireo bellii</i> | Bird |
| 17 | Sandy Stream Tiger Beetle | <i>Cicindela macra</i> | Insect |
| 17 | Western Diamond-backed | <i>Crotalus atrox</i> | Reptile |
| 17 | Trumpeter Swan | <i>Cygnus buccinator</i> | Bird |
| 17 | Earthworm | <i>Diplocardia meansi</i> | Invertebrate - other |
| 17 | Round Pigtoe | <i>Pleurobema sintoxia</i> | Mussel |

| | | | |
|----|-----------------------------|-----------------------------------|-----------|
| 17 | Little Spectaclecase group | <i>Villosa sp. cf lienosa</i> | Mussel |
| 15 | Mole Salamander | <i>Ambystoma talpoideum</i> | Amphibian |
| 15 | Gorgone Checkerspot | <i>Chlosyne gorgone</i> | Insect |
| 15 | Monarch | <i>Danaus plexippus</i> | Insect |
| 15 | Bird-voiced Treefrog | <i>Hyla avivoca</i> | Amphibian |
| 15 | "Arkoma" Fatmucket | <i>Lampsilis sp. A cf hydiana</i> | Mussel |
| 15 | Long-tailed Weasel | <i>Mustela frenata</i> | Mammal |
| 15 | Slender Glass Lizard | <i>Ophisaurus attenuatus</i> | Reptile |
| 15 | Saddleback Darter | <i>Percina vigil</i> | Fish |
| 15 | American Golden-Plover | <i>Pluvialis dominica</i> | Bird |
| 15 | Broad-winged Skipper | <i>Poanes viator</i> | Insect |
| 15 | Fawnsfoot | <i>Truncilla donaciformis</i> | Mussel |
| 13 | Twelve-spotted Tiger Beetle | <i>Cicindela duodecimguttata</i> | Insect |

Habitats that occur in the Ouachita Mountains

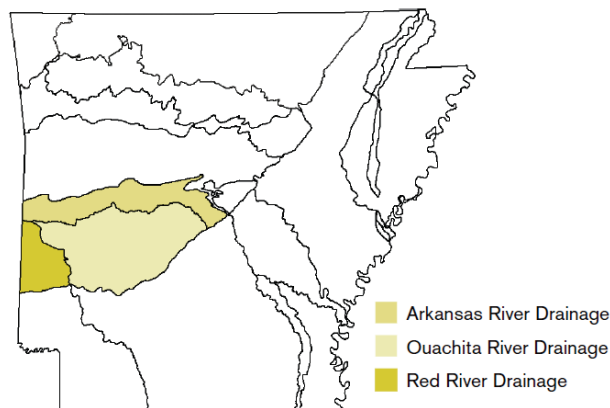
Of the 37 terrestrial habitats in Arkansas, 20 occur in the Ouachita Mountains ecoregion (Table 3.19). Of 18 ecobasins in Arkansas, three occur in the Ouachita Mountains ecoregion (Figure 3.14). These associations are described in the Section 4. Terrestrial Habitats Section 5. Aquatic Habitats.

Table 3.19. Terrestrial Habitats in the Ouachita Mountains.

Habitat Name

Caves, Mines, Sinkholes, and other Karst Habitat
Crop Land
Cultivated Forest
Herbaceous Wetland
Interior Highlands Calcareous Glade and Barrens
Interior Highlands Dry Acidic Glade and Barrens
Mud Flats
Ouachita Montane Oak Forest
Ozark-Ouachita Cliff and Talus
Ozark-Ouachita Dry Oak and Pine Woodland
Ozark-Ouachita Dry-Mesic Oak Forest
Ozark-Ouachita Forested Seep
Ozark-Ouachita Large Floodplain
Ozark-Ouachita Mesic Hardwood Forest
Ozark-Ouachita Pine/Bluestem Woodland
Ozark-Ouachita Pine-Oak Forest/ Woodland
Ozark-Ouachita Riparian
Pasture Land
Ponds, Lakes, and Water Holes
Urban/Suburban

Figure 3.14. Ecobasin Distribution in the Ouachita Mountains.



Problems faced by Species of Greatest Conservation Need (SGCN)

Taxa association teams listed problems faced by SGCN individually in the Species Reports, pages 45-1082. A summary of the problems faced by SGCN in the Ouachita Mountains is presented below. Each problem has a score which is a sum of all Species Priority Scores associated with species for which this problem was assigned. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species associated with problems listed here.

Table 3.20. Problems faced by SGCN.

| Problem faced | Score |
|--|-------|
| Forestry activities | 2749 |
| Dam | 1755 |
| Agricultural practices | 1564 |
| Road construction | 1507 |
| Resource extraction | 1339 |
| Grazing/Browsing | 1217 |
| Urban development | 921 |
| Fire suppression | 702 |
| Municipal/Industrial point source | 597 |
| Conversion of riparian forest | 572 |
| Water diversion | 526 |
| Confined animal operations | 514 |
| Channel alteration | 477 |
| Channel maintenance | 378 |
| Recreation | 270 |
| Parasites/pathogens | 250 |
| Predation | 247 |
| Exotic species | 234 |
| Commercial/industrial development | 232 |
| Management of/for certain species | 168 |
| Non-point source pollution | 135 |
| unknown | 52 |
| Excessive non-commercial harvest or collection | 50 |
| Commercial harvest | 43 |
| Excessive groundwater withdrawal | 40 |
| Interspecific competition | 29 |

Conservation actions needed in the Ouachita Mountains

Descriptions of conservation actions linked to individual species on the list of SGCN are presented in the Species Reports, pages 44-1113. Below are categories of conservation actions recommended by the taxa association teams (Figure 3.15). An explanation of the categories follows in Table 3.21.

The score associated with the conservation action category is the sum of all priority scores associated with species for which a conservation action has been assigned, weighted by the importance of the conservation action category to the species. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species would be affected by actions within this conservation action category.

These scores may be used as guides to directing the apportionment of funding toward conservation actions benefiting habitats and species of greatest conservation need.

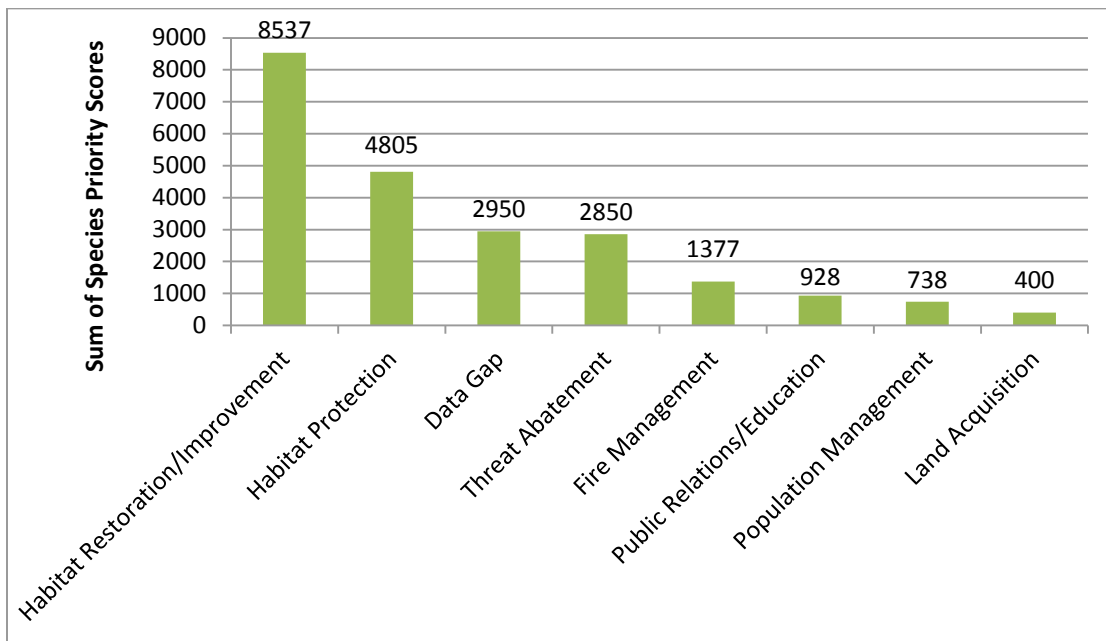


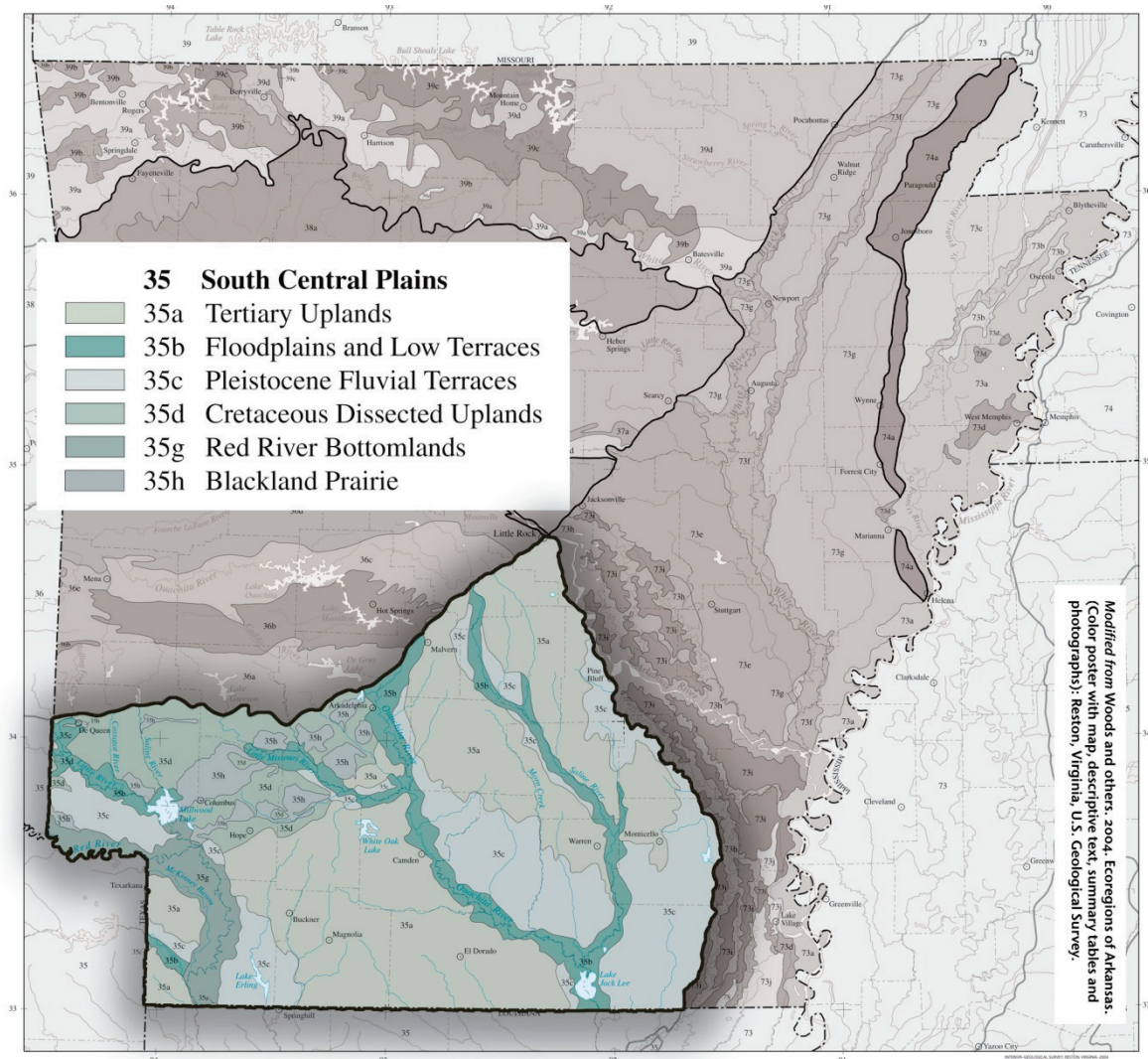
Figure 3.15. Conservation action categories recommended for the Ouachita Mountains.

South Central Plains (Ecoregion 35)

Ecoregion 35 is composed of rolling plains that are broken by nearly flat fluvial terraces, bottomlands, sandy low hills and low cuestas; its terrain is unlike the much more rugged Ouachita Mountains (36) or the flatter, less dissected Mississippi Alluvial Plain (73). Uplands are underlain by poorly-consolidated, Tertiary- through Cretaceous-age, coastal plain deposits and marginal marine sediments (laid down as the Gulf of Mexico opened and North America's southern continental margin subsided). Bottomlands and terraces are veneered with Quaternary alluvium or windblown silt deposits (loess). The lithologic mosaic is distinct from the Paleozoic rocks of Ecoregion 36 and the strictly Quaternary deposits of Ecoregion 73.

Potential natural vegetation is oak-hickory-pine forest on uplands and southern floodplain forest on bottomlands. Today, more than 75 percent of Ecoregion 35 remains wooded.

Figure 3.16. South Central Plains Ecoregion





South Central Plains - Blackland Prairie

Extensive commercial loblolly pine–shortleaf pine plantations occur. Lumber and pulpwood production, livestock grazing and crawfish farming are major land uses.

Cropland dominates the drained bottomlands of the Red River. Turbidity and total suspended solid concentrations are usually low except in the Red River. Summer flow in many small streams is limited or nonexistent but enduring pools may occur. Fish communities typically have a limited proportion of sensitive species; sunfishes are dominant and darters and minnows are common.

Tertiary Uplands

35a. The rolling Tertiary Uplands are dominated by commercial pine plantations that have replaced the native oak– hickory–pine forest. Ecoregion 35a is underlain by poorly-consolidated Tertiary sand, silt and gravel; it lacks the Cretaceous, often calcareous rocks of Ecoregion 35d and the extensive Quaternary alluvium of Ecoregions 35b, 35g and 73.

Extensive forests dominated by loblolly and shortleaf pines grow on loamy, well- drained, thermic Ultisols; scattered, stunted, sandhill woodlands also occur.

Waters tend to be stained by organics, thus lowering water clarity and increasing total organic carbon and biochemical oxygen demand levels. Most streams have a sandy substrate and a forest canopy. Many do not flow during the summer or early fall. However, in sandhills, spring-fed, perennial streams occur; here, total dissolved solids, total suspended solids, alkalinity and hardness values are lower than elsewhere in Ecoregion 35. Water quality in forested basins is

better than in pastureland. Oil production has lowered stream quality in the south.

Floodplains and Low Terraces

35b. The Floodplains and Low Terraces ecoregion is nearly level, veneered by Holocene alluvium and contains natural levees, swales, oxbow lakes and meander scars. Longitudinal channel gradients are low and are less than in the Ouachita Mountains (36). Large parts of Ecoregion 35b are frequently flooded.

Forested wetlands are characteristic, but pastureland also occurs. Cropland is far less common than in the Red River Bottomlands (35g). Potential natural vegetation is southern floodplain forest as in the Mississippi Alluvial Plain (73); it is unlike the oak–hickory–pine forest of the higher, better drained and lithologically distinct Tertiary Uplands (35a) and Cretaceous Dissected Uplands (35d).

Pleistocene Fluvial Terraces

35c. The Pleistocene Fluvial Terraces are nearly level, poorly-drained, periodically wet, underlain by Pleistocene unconsolidated terrace deposits and covered by pine flatwoods. Loblolly pine and oaks are common and are adapted to the prevailing hydroxeric regime; pastureland and hayland are less extensive.

A vertical sequence of terraces occurs. The lowest terrace is nearly flat, clayey and has extensive hardwood wetlands. Higher terraces become progressively older and more dissected; they are dominated by pine flatwoods, pine savanna, or prairie; flatwood wetlands are less extensive than on the lowest terrace. The midlevel terrace is veneered with windblown silt deposits (loess). Streams tend to be mildly acidic and stained by organic matter. They have more suspended solids, greater turbidity and higher hardness values than Ecoregion 35a.

Cretaceous Dissected Uplands

35d. The nearly level to hilly Cretaceous Dissected Uplands ecoregion has a greater drainage density than other parts of Ecoregion 35. Ecoregion 35a is underlain by Cretaceous sandy, clayey, or gravelly deposits that are often calcareous; it is lithologically distinct from the Tertiary noncalcareous deposits of Ecoregion 35a, the Quaternary alluvium of Ecoregions 35b, 35g and 73 and the chalks and marls of Ecoregion 35h.

Native vegetation is largely oak–hickory–pine forest. Today, woods and pastureland are common. Water quality in forested watersheds tends to be good and is better than in pastureland. Streams generally have lower total dissolved solids values and much lower total organic carbon values than Ecoregions 35a and 35c, although turbidity, total suspended solids and hardness values are slightly higher. Longitudinal stream gradients and Ouachita Mountain influences are greater than in Ecoregions 35a or 35c.

Red River Bottomlands

35g. The nearly flat Red River Bottomlands ecoregion is veneered with Holocene alluvium and has been widely cleared and drained for agriculture. It contains flood- plains, low terraces, oxbow lakes, meander scars, backswamps, natural levees and the meandering Red River.

Potential natural vegetation is southern floodplain forest; it is unlike the oak–hickory–pine forest of higher, better drained and lithologically distinct Ecoregions 35a and 35d. Western species, such as bur oak and Durand oak, were native to Ecoregion

35g but were typically absent from the Mississippi Alluvial Plain (73). The natural forest of Ecoregion 35g has been largely replaced by agriculture. Today, cropland is more extensive than in other parts of Ecoregion 35 in Arkansas. The Red River is almost continuously turbid; suspended sediment concentrations are usually much higher than in the Saline or Ouachita rivers of Ecoregion 35b due to land cover, land use and upstream lithology differences.

Blackland Prairie

35h. The level to rolling Blackland Prairie characteristically has dark soils derived from underlying Cretaceous marl, chalk and limestone.

Prairie was common or dominant during and shortly after the Hypsithermal Period in the middle of the Holocene Epoch. By the late 18th century, Ecoregion 35h was a mosaic of woodland, savanna and prairies, containing species that were found nowhere else in Arkansas. Today, hayland and, especially, pastureland dominate; pastureland is more common than elsewhere in Arkansas' South Central Plains (35). Only a few prairie remnants still occur and are mostly limited to the thin, droughty soils of cuesta scarps (adapted from Woods and others 2004).

South Central Plains Ecoregion: Species of Greatest Conservation Need (SGCN)

Species of greatest conservation need (SGCN) in the South Central Plains are presented by taxa association (Table 3.22). A higher priority score indicates a greater need for actions to conserve the species. A ranked list of all SGCN associated with the ecoregion is presented in Table 3.23.

Table 3.22. SGCN by taxa association.

| Taxa Association | Common Name | Scientific Name | Priority Score |
|-------------------------|----------------------------|-----------------------------|-----------------------|
| Amphibian | Louisiana Slimy Salamander | <i>Plethodon kisatchie</i> | 27 |
| | Spotted Dusky Salamander | <i>Desmognathus conanti</i> | 23 |
| | Squirrel Treefrog | <i>Hyla squirella</i> | 23 |
| | Crawfish Frog | <i>Lithobates areolatus</i> | 23 |
| | Hurter's Spadefoot | <i>Scaphiopus hurterii</i> | 19 |

| | | | |
|------|----------------------------|---------------------------------------|----|
| | Mole Salamander | <i>Ambystoma talpoideum</i> | 15 |
| | Dwarf Salamander | <i>Eurycea quadridigitata</i> | 15 |
| | Bird-voiced Treefrog | <i>Hyla avivoca</i> | 15 |
| Bird | Piping Plover | <i>Charadrius melodus</i> | 43 |
| | Red-cockaded Woodpecker | <i>Picoides borealis</i> | 43 |
| | Henslow's Sparrow | <i>Ammodramus henslowii</i> | 33 |
| | Sprague's Pipit | <i>Anthus spragueii</i> | 33 |
| | Bachman's Sparrow | <i>Peucaea aestivalis</i> | 33 |
| | King Rail | <i>Rallus elegans</i> | 33 |
| | Interior Least Tern | <i>Sternula antillarum athalassos</i> | 31 |
| | Buff-breasted Sandpiper | <i>Calidris subruficollis</i> | 29 |
| | Swallow-tailed Kite | <i>Elanoides forficatus</i> | 29 |
| | Rusty Blackbird | <i>Euphagus carolinus</i> | 29 |
| | Bewick's Wren | <i>Thryomanes bewickii</i> | 29 |
| | Ruddy Turnstone | <i>Arenaria interpres</i> | 24 |
| | Smith's Longspur | <i>Calcarius pictus</i> | 24 |
| | Common Nighthawk | <i>Chordeiles minor</i> | 24 |
| | Migrant Loggerhead Shrike | <i>Lanius ludovicianus</i> | 24 |
| | Yellow-crowned Night-Heron | <i>Nyctanassa violacea</i> | 24 |
| | Black-bellied Plover | <i>Pluvialis squatarola</i> | 24 |
| | American Woodcock | <i>Scolopax minor</i> | 24 |
| | Cerulean Warbler | <i>Setophaga cerulea</i> | 24 |
| | American Bittern | <i>Botaurus lentiginosus</i> | 23 |
| | Willow Flycatcher | <i>Empidonax traillii</i> | 23 |
| | Purple Gallinule | <i>Porphyrio martinicus</i> | 23 |
| | Le Conte's Sparrow | <i>Ammodramus leconteii</i> | 21 |
| | Sedge Wren | <i>Cistothorus platensis</i> | 21 |
| | Sharp-shinned Hawk | <i>Accipiter striatus</i> | 19 |
| | Grasshopper Sparrow | <i>Ammodramus savannarum</i> | 19 |
| | American Black Duck | <i>Anas rubripes</i> | 19 |
| | Anhinga | <i>Anhinga anhinga</i> | 19 |
| | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | 19 |
| | Sanderling | <i>Calidris alba</i> | 19 |
| | Dunlin | <i>Calidris alpina</i> | 19 |
| | Stilt Sandpiper | <i>Calidris himantopus</i> | 19 |
| | Chimney Swift | <i>Chaetura pelagica</i> | 19 |
| | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | 19 |
| | Northern Bobwhite | <i>Colinus virginianus</i> | 19 |
| | Tricolored Heron | <i>Egretta tricolor</i> | 19 |
| | American Kestrel | <i>Falco sparverius</i> | 19 |
| | Common Gallinule | <i>Gallinula galeata</i> | 19 |
| | Purple Finch | <i>Haemorhous purpureus</i> | 19 |
| | Wood Thrush | <i>Hylocichla mustelina</i> | 19 |
| | Least Bittern | <i>Ixobrychus exilis</i> | 19 |
| | Short-billed Dowitcher | <i>Limnodromus griseus</i> | 19 |
| | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | 19 |

| | | | |
|----------|---------------------------------|-----------------------------------|----|
| | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | 19 |
| | Bell's Vireo | <i>Vireo bellii</i> | 19 |
| | Trumpeter Swan | <i>Cygnus buccinator</i> | 17 |
| | American Golden-Plover | <i>Pluvialis dominica</i> | 15 |
| Crayfish | Slenderwrist Burrowing Crayfish | <i>Fallicambarus petilicarpus</i> | 80 |
| | Saline Burrowing Crayfish | <i>Fallicambarus strawni</i> | 65 |
| | Bayou Bodcau Crayfish | <i>Bouchardina robisoni</i> | 50 |
| | Jefferson County Crayfish | <i>Fallicambarus gilpini</i> | 50 |
| | Blair's Fencing Crayfish | <i>Faxonella blairi</i> | 46 |
| | Regal Burrowing Crayfish | <i>Procambarus regalis</i> | 38 |
| | Pine Hills Digger | <i>Fallicambarus dissitus</i> | 32 |
| | Bismark Burrowing Crayfish | <i>Procambarus parasimulans</i> | 19 |
| Fish | Leopard Darter | <i>Percina pantherina</i> | 62 |
| | Alabama Shad | <i>Alosa alabamae</i> | 52 |
| | Ouachita Darter | <i>Percina brucethompsoni</i> | 46 |
| | Crystal Darter | <i>Crystallaria asprella</i> | 38 |
| | Stargazing Darter | <i>Percina uranidea</i> | 38 |
| | Western Sand Darter | <i>Ammocrypta clara</i> | 33 |
| | Peppered Shiner | <i>Notropis perpallidus</i> | 33 |
| | Bluehead Shiner | <i>Pteronotropis hubbsi</i> | 33 |
| | Alligator Gar | <i>Atractosteus spatula</i> | 27 |
| | Plains Minnow | <i>Hybognathus placitus</i> | 27 |
| | Ouachita Shiner | <i>Lythrurus snelsoni</i> | 27 |
| | Red River Shiner | <i>Notropis bairdi</i> | 27 |
| | Brown Madtom | <i>Noturus phaeus</i> | 27 |
| | American Eel | <i>Anguilla rostrata</i> | 24 |
| | Paddlefish | <i>Polyodon spathula</i> | 24 |
| | Blue Sucker | <i>Cycleptus elongatus</i> | 23 |
| | Lowland Topminnow | <i>Fundulus blairae</i> | 23 |
| | Chub Shiner | <i>Notropis potteri</i> | 23 |
| | Brown Bullhead | <i>Ameiurus nebulosus</i> | 19 |
| | Goldeye | <i>Hiodon alosoides</i> | 19 |
| | Mooneye | <i>Hiodon tergisus</i> | 19 |
| | American Brook Lamprey | <i>Lethenteron appendix</i> | 19 |
| | Striped Mullet | <i>Mugil cephalus</i> | 19 |
| | Blackspot Shiner | <i>Notropis atrocaudalis</i> | 19 |
| | Slenderhead Darter | <i>Percina phoxocephala</i> | 19 |
| | Highfin Carpsucker | <i>Carpionodes velifer</i> | 17 |
| | Goldstripe Darter | <i>Etheostoma parvipinne</i> | 17 |
| | Lake Chubsucker | <i>Erimyzon sucetta</i> | 15 |
| | Swamp Darter | <i>Etheostoma fusiforme</i> | 15 |
| | Shoal Chub | <i>Macrhybopsis hyostoma</i> | 15 |
| | Saddleback Darter | <i>Percina vigil</i> | 15 |
| Insect | Rattlesnake-Master Borer Moth | <i>Papaipema eryngii</i> | 65 |
| | Stonefly | <i>Leuctra paleo</i> | 50 |
| | Texas Frosted Elfin | <i>Callophrys irus hadros</i> | 42 |

| | | | |
|-------------------------|------------------------------|----------------------------------|----|
| | American Burying Beetle | <i>Nicrophorus americanus</i> | 42 |
| | Dukes' Skipper | <i>Euphyes dukesi</i> | 32 |
| | Giant Prairie Robberfly | <i>Microstylum morosum</i> | 30 |
| | Mottled Duskywing | <i>Erynnis martialis</i> | 29 |
| | Meske's Skipper | <i>Hesperia meskei</i> | 29 |
| | Lace-winged Roadside-Skipper | <i>Amblyscirtes aesculapius</i> | 27 |
| | Appalachian Azure | <i>Celastrina neglectamajor</i> | 27 |
| | Ozark Clubtail Dragonfly | <i>Gomphus ozarkensis</i> | 27 |
| | Georgia Satyr | <i>Neonympha areolatus</i> | 27 |
| | King's Hairstreak | <i>Satyrium kingi</i> | 27 |
| | Tiger Beetle | <i>Cicindela lepida</i> | 25 |
| | Giant Stag Beetle | <i>Lucanus elaphus</i> | 25 |
| | Diana | <i>Speyeria diana</i> | 25 |
| | Northern Metalmark | <i>Calephelis borealis</i> | 23 |
| | Dusky Azure | <i>Celastrina nigra</i> | 23 |
| | Outis Skipper | <i>Cogia outis</i> | 23 |
| | Yehl Skipper | <i>Poanes yehl</i> | 23 |
| | Byssus Skipper | <i>Problema byssus</i> | 23 |
| | Anthophorid Bee | <i>Tetraloniella albata</i> | 23 |
| | Bell's Roadside-Skipper | <i>Amblyscirtes belli</i> | 21 |
| | Texas Milkweed Beetle | <i>Tetraopes texanus</i> | 21 |
| | Dion Skipper | <i>Euphyes dion</i> | 19 |
| | Leonard's Skipper | <i>Hesperia leonardus</i> | 19 |
| | Cobweb Skipper | <i>Hesperia metea</i> | 19 |
| | Oak Hairstreak | <i>Satyrium favonius ontario</i> | 19 |
| | Beach-dune Tiger Beetle | <i>Cicindela hirticollis</i> | 17 |
| | Gorgone Checkerspot | <i>Chlosyne gorgone</i> | 15 |
| | Monarch | <i>Danaus plexippus</i> | 15 |
| | Broad-winged Skipper | <i>Poanes viator</i> | 15 |
| | Winter Stonefly | <i>Allocaonia malverna</i> | 11 |
| Invertebrate - other | Channelled Pebblesnail | <i>Somatogyrus wheeleri</i> | 80 |
| Mammal | Northern Long-eared Bat | <i>Myotis septentrionalis</i> | 63 |
| | Little Brown Bat | <i>Myotis lucifugus</i> | 33 |
| | Rafinesque's Big-Eared Bat | <i>Corynorhinus rafinesquii</i> | 29 |
| | Southeastern Bat | <i>Myotis austroriparius</i> | 24 |
| | Eastern Spotted Skunk | <i>Spilogale putorius</i> | 21 |
| | Crawford's Gray Shrew | <i>Notiosorex crawfordi</i> | 19 |
| | Eastern Harvest Mouse | <i>Reithrodontomys humulis</i> | 19 |
| | Long-tailed Weasel | <i>Mustela frenata</i> | 15 |
| Mussel | Ouachita Rock Pocketbook | <i>Arcidens wheeleri</i> | 80 |
| | Winged Mapleleaf | <i>Quadrula fragosa</i> | 80 |
| | Scaleshell | <i>Leptodea leptodon</i> | 76 |
| | Louisiana Pearlshell | <i>Margaritifera hembeli</i> | 65 |
| | Texas Pigtoe | <i>Pleurobema riddellii</i> | 65 |
| | Arkansas Fatmucket | <i>Lampsilis powellii</i> | 57 |

| | | | |
|---------|----------------------------|---------------------------------------|----|
| | Rabbitsfoot | <i>Quadrula cylindrica cylindrica</i> | 52 |
| | Pink Mucket | <i>Lampsilis abrupta</i> | 46 |
| | "Ouachita" Fanshell | <i>Cyprogenia sp. cf aberti</i> | 43 |
| | Spectaclecase | <i>Cumberlandia monodonta</i> | 38 |
| | Pyramid Pigtoe | <i>Pleurobema rubrum</i> | 38 |
| | Purple Lilliput | <i>Toxolasma lividum</i> | 33 |
| | Purple Pimpleback | <i>Quadrula refulgens</i> | 30 |
| | Ouachita Kidneyshell | <i>Ptychobranthus occidentalis</i> | 23 |
| | Elktoe | <i>Alasmidonta marginata</i> | 19 |
| | Southern Pocketbook | <i>Lampsilis ornata</i> | 19 |
| | "Red River" Mucket | <i>Lampsilis sp. B cf hydiana</i> | 19 |
| | Hickorynut | <i>Obovaria olivaria</i> | 19 |
| | Ohio Pigtoe | <i>Pleurobema cordatum</i> | 19 |
| | Gulf Mapleleaf | <i>Quadrula nobilis</i> | 19 |
| | Lilliput | <i>Toxolasma parvum</i> | 19 |
| | Texas Lilliput | <i>Toxolasma texasiense</i> | 19 |
| | Tapered Pondhorn | <i>Unio merus declivis</i> | 19 |
| | Pondhorn | <i>Unio merus tetralasmus</i> | 19 |
| | Round Pigtoe | <i>Pleurobema sintoxia</i> | 17 |
| | Little Spectaclecase group | <i>Villosa sp. cf lienosa</i> | 17 |
| | Southern Mapleleaf | <i>Quadrula apiculata</i> | 15 |
| | Fawnsfoot | <i>Truncilla donaciformis</i> | 15 |
| Reptile | Chicken Turtle | <i>Deirochelys reticularia</i> | 19 |
| | Texas Coralsnake | <i>Micrurus tener</i> | 19 |
| | Prairie Skink | <i>Plestiodon septentrionalis</i> | 19 |
| | Graham's Crayfish Snake | <i>Regina grahamii</i> | 19 |
| | Glossy Swampsnake | <i>Liodytes rigida</i> | 15 |
| | Slender Glass Lizard | <i>Ophisaurus attenuatus</i> | 15 |

Table 3.23. Species of greatest conservation need (SGCN) in the South Central Plains ranked by priority score. A higher priority score indicates a greater need for actions to conserve the species. Of the 377 SGCN, 170 occur in this ecoregion.

| Priority Score | Common Name | Scientific Name | Taxa Association |
|----------------|---------------------------------|-----------------------------------|----------------------|
| 80 | Ouachita Rock Pocketbook | <i>Arcidens wheeleri</i> | Mussel |
| 80 | Slenderwrist Burrowing Crayfish | <i>Fallicambarus petilicarpus</i> | Crayfish |
| 80 | Winged Mapleleaf | <i>Quadrula fraagosa</i> | Mussel |
| 80 | Channelled Pebblesnail | <i>Somatoaqrus wheeleri</i> | Invertebrate - other |
| 76 | Scaleshell | <i>Leptodea leptodon</i> | Mussel |
| 65 | Saline Burrowing Crayfish | <i>Fallicambarus strawni</i> | Crayfish |
| 65 | Louisiana Pearlshell | <i>Marqaritifera hembeli</i> | Mussel |
| 65 | Rattlesnake-Master Borer Moth | <i>Papaipema erynqii</i> | Insect |
| 65 | Texas Pigtoe | <i>Pleurobema riddellii</i> | Mussel |
| 63 | Northern Long-eared Bat | <i>Myotis septentrionalis</i> | Mammal |
| 62 | Leopard Darter | <i>Percina pantherina</i> | Fish |
| 57 | Arkansas Fatmucket | <i>Lampsilis powellii</i> | Mussel |

| | | | |
|----|------------------------------|---------------------------------------|-----------|
| 52 | Alabama Shad | <i>Alosa alabamae</i> | Fish |
| 52 | Rabbitsfoot | <i>Quadrula cylindrica cylindrica</i> | Mussel |
| 50 | Bayou Bodcau Crayfish | <i>Bouchardina robisoni</i> | Crayfish |
| 50 | Jefferson County Crayfish | <i>Fallicambarus gilpini</i> | Crayfish |
| 50 | Stonefly | <i>Leuctra paleo</i> | Insect |
| 46 | Blair's Fencing Crayfish | <i>Faxonella blairi</i> | Crayfish |
| 46 | Pink Mucket | <i>Lampsilis abrupta</i> | Mussel |
| 46 | Ouachita Darter | <i>Percina brucethompsoni</i> | Fish |
| 43 | Piping Plover | <i>Charadrius melodus</i> | Bird |
| 43 | "Ouachita" Fanshell | <i>Cyproaenia sp. cf aberti</i> | Mussel |
| 43 | Red-cockaded Woodpecker | <i>Picoides borealis</i> | Bird |
| 42 | Texas Frosted Elfin | <i>Callophrys irus hadros</i> | Insect |
| 42 | American Burving Beetle | <i>Nicrophorus americanus</i> | Insect |
| 38 | Crystal Darter | <i>Crystallaria asprella</i> | Fish |
| 38 | Spectaclecase | <i>Cumberlandia monodonta</i> | Mussel |
| 38 | Stargazing Darter | <i>Percina uranidea</i> | Fish |
| 38 | Pyramid Pigtoe | <i>Pleurobema rubrum</i> | Mussel |
| 38 | Regal Burrowing Crayfish | <i>Procambarus requalis</i> | Crayfish |
| 33 | Western Sand Darter | <i>Ammocrypta clara</i> | Fish |
| 33 | Henslow's Sparrow | <i>Ammodramus henslowii</i> | Bird |
| 33 | Sprague's Pipit | <i>Anthus spragueii</i> | Bird |
| 33 | Little Brown Bat | <i>Myotis lucifugus</i> | Mammal |
| 33 | Peppered Shiner | <i>Notropis perpallidus</i> | Fish |
| 33 | Bachman's Sparrow | <i>Peucaea aestivalis</i> | Bird |
| 33 | Bluehead Shiner | <i>Pteronotropis hubbsi</i> | Fish |
| 33 | King Rail | <i>Rallus elegans</i> | Bird |
| 33 | Purple Lilliput | <i>Toxolasma lividum</i> | Mussel |
| 32 | Dukes' Skipper | <i>Euphyes dukesi</i> | Insect |
| 32 | Pine Hills Digger | <i>Fallicambarus dissitus</i> | Crayfish |
| 31 | Interior Least Tern | <i>Sternula antillarum athalassos</i> | Bird |
| 30 | Giant Prairie Robberfly | <i>Microstylum morosum</i> | Insect |
| 30 | Purple Pimpleback | <i>Quadrula refulaens</i> | Mussel |
| 29 | Buff-breasted Sandpiper | <i>Calidris subruficollis</i> | Bird |
| 29 | Rafinesque's Big-Eared Bat | <i>Corvnorhinus rafinesquii</i> | Mammal |
| 29 | Swallow-tailed Kite | <i>Elanoides forficatus</i> | Bird |
| 29 | Mottled Duskywing | <i>Erynnis martialis</i> | Insect |
| 29 | Rusty Blackbird | <i>Euphagus carolinus</i> | Bird |
| 29 | Meske's Skipper | <i>Hesperia meskei</i> | Insect |
| 29 | Bewick's Wren | <i>Thryomanes bewickii</i> | Bird |
| 27 | Lace-winged Roadside-Skipper | <i>Amblyscirtes aesculapius</i> | Insect |
| 27 | Alligator Gar | <i>Atractosteus spatula</i> | Fish |
| 27 | Appalachian Azure | <i>Celastrina neglectamajor</i> | Insect |
| 27 | Ozark Clubtail Dragonfly | <i>Gomphus ozarkensis</i> | Insect |
| 27 | Plains Minnow | <i>Hybognathus placitus</i> | Fish |
| 27 | Ouachita Shiner | <i>Lythrurus snelsoni</i> | Fish |
| 27 | Georgia Satyr | <i>Neonympha areolatus</i> | Insect |
| 27 | Red River Shiner | <i>Notropis bairdi</i> | Fish |
| 27 | Brown Madtom | <i>Noturus phaeus</i> | Fish |
| 27 | Louisiana Slimy Salamander | <i>Plethodon kisatchie</i> | Amphibian |
| 27 | King's Hairstreak | <i>Satyrium kingi</i> | Insect |

| | | | |
|----|----------------------------|------------------------------------|-----------|
| 25 | Tiger Beetle | <i>Cicindela lepida</i> | Insect |
| 25 | Giant Stag Beetle | <i>Lucanus elaphus</i> | Insect |
| 25 | Diana | <i>Speyeria diana</i> | Insect |
| 24 | American Eel | <i>Anguilla rostrata</i> | Fish |
| 24 | Ruddy Turnstone | <i>Arenaria interpres</i> | Bird |
| 24 | Smith's Longspur | <i>Calcarius pictus</i> | Bird |
| 24 | Common Nighthawk | <i>Chordeiles minor</i> | Bird |
| 24 | Migrant Loggerhead Shrike | <i>Lanius ludovicianus</i> | Bird |
| 24 | Southeastern Bat | <i>Myotis austroriparius</i> | Mammal |
| 24 | Yellow-crowned Night-Heron | <i>Nyctanassa violacea</i> | Bird |
| 24 | Black-bellied Plover | <i>Pluvialis squatarola</i> | Bird |
| 24 | Paddlefish | <i>Polyodon spathula</i> | Fish |
| 24 | American Woodcock | <i>Scolopax minor</i> | Bird |
| 24 | Cerulean Warbler | <i>Setophaga cerulea</i> | Bird |
| 23 | American Bittern | <i>Botaurus lentiginosus</i> | Bird |
| 23 | Northern Metalmark | <i>Calephelis borealis</i> | Insect |
| 23 | Dusky Azure | <i>Celastrina nigra</i> | Insect |
| 23 | Outis Skipper | <i>Cogia outis</i> | Insect |
| 23 | Blue Sucker | <i>Cycleptus elongatus</i> | Fish |
| 23 | Spotted Dusky Salamander | <i>Desmognathus conanti</i> | Amphibian |
| 23 | Willow Flycatcher | <i>Empidonax traillii</i> | Bird |
| 23 | Lowland Topminnow | <i>Fundulus blairae</i> | Fish |
| 23 | Squirrel Treefrog | <i>Hyla squirella</i> | Amphibian |
| 23 | Crawfish Frog | <i>Lithobates areolatus</i> | Amphibian |
| 23 | Chub Shiner | <i>Notropis potteri</i> | Fish |
| 23 | Yehl Skipper | <i>Poanes yehl</i> | Insect |
| 23 | Purple Gallinule | <i>Porphyrio martinicus</i> | Bird |
| 23 | Byssus Skipper | <i>Problema byssus</i> | Insect |
| 23 | Ouachita Kidneyshell | <i>Ptychobranthus occidentalis</i> | Mussel |
| 23 | Anthophorid Bee | <i>Tetraloniella albata</i> | Insect |
| 21 | Le Conte's Sparrow | <i>Ammodramus leconteii</i> | Bird |
| 21 | Bell's Roadside-Skipper | <i>Amblyscirtes belli</i> | Insect |
| 21 | Sedge Wren | <i>Cistothorus platensis</i> | Bird |
| 21 | Eastern Spotted Skunk | <i>Spilogale putorius</i> | Mammal |
| 21 | Texas Milkweed Beetle | <i>Tetraopes texanus</i> | Insect |
| 19 | Sharp-shinned Hawk | <i>Accipiter striatus</i> | Bird |
| 19 | Elktoe | <i>Alasmidonta marginata</i> | Mussel |
| 19 | Brown Bullhead | <i>Ameiurus nebulosus</i> | Fish |
| 19 | Grasshopper Sparrow | <i>Ammodramus savannarum</i> | Bird |
| 19 | American Black Duck | <i>Anas rubripes</i> | Bird |
| 19 | Anhinga | <i>Anhinga anhinga</i> | Bird |
| 19 | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | Bird |
| 19 | Sanderling | <i>Calidris alba</i> | Bird |
| 19 | Dunlin | <i>Calidris alpina</i> | Bird |
| 19 | Stilt Sandpiper | <i>Calidris himantopus</i> | Bird |
| 19 | Chimney Swift | <i>Chaetura pelagica</i> | Bird |

| | | | |
|----|----------------------------|-----------------------------------|-----------|
| 19 | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | Bird |
| 19 | Northern Bobwhite | <i>Colinus virginianus</i> | Bird |
| 19 | Chicken Turtle | <i>Deirochelys reticularia</i> | Reptile |
| 19 | Tricolored Heron | <i>Egretta tricolor</i> | Bird |
| 19 | Dion Skipper | <i>Euphyes dion</i> | Insect |
| 19 | American Kestrel | <i>Falco sparverius</i> | Bird |
| 19 | Common Gallinule | <i>Gallinula galeata</i> | Bird |
| 19 | Purple Finch | <i>Haemorhous purpureus</i> | Bird |
| 19 | Leonard's Skipper | <i>Hesperia leonardus</i> | Insect |
| 19 | Cobweb Skipper | <i>Hesperia metea</i> | Insect |
| 19 | Goldeye | <i>Hiodon alosoides</i> | Fish |
| 19 | Mooneye | <i>Hiodon tergisus</i> | Fish |
| 19 | Wood Thrush | <i>Hylocichla mustelina</i> | Bird |
| 19 | Least Bittern | <i>Ixobrychus exilis</i> | Bird |
| 19 | Southern Pocketbook | <i>Lampsilis ornata</i> | Mussel |
| 19 | "Red River" Mucket | <i>Lampsilis sp. B cf hydiana</i> | Mussel |
| 19 | American Brook Lamprey | <i>Lethenteron appendix</i> | Fish |
| 19 | Short-billed Dowitcher | <i>Limnodromus griseus</i> | Bird |
| 19 | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | Bird |
| 19 | Texas Coralsnake | <i>Micrurus tener</i> | Reptile |
| 19 | Striped Mullet | <i>Mugil cephalus</i> | Fish |
| 19 | Crawford's Gray Shrew | <i>Notiosorex crawfordi</i> | Mammal |
| 19 | Blackspot Shiner | <i>Notropis atrocaudalis</i> | Fish |
| 19 | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | Bird |
| 19 | Hickorynut | <i>Obovaria olivaria</i> | Mussel |
| 19 | Slenderhead Darter | <i>Percina phoxocephala</i> | Fish |
| 19 | Prairie Skink | <i>Plestiodon septentrionalis</i> | Reptile |
| 19 | Ohio Pigtoe | <i>Pleurobema cordatum</i> | Mussel |
| 19 | Bismark Burrowing Crayfish | <i>Procambarus parasimulans</i> | Crayfish |
| 19 | Gulf Mapleleaf | <i>Quadrula nobilis</i> | Mussel |
| 19 | Graham's Crayfish Snake | <i>Regina grahamii</i> | Reptile |
| 19 | Eastern Harvest Mouse | <i>Reithrodontomys humulis</i> | Mammal |
| 19 | Oak Hairstreak | <i>Satyrium favonius ontario</i> | Insect |
| 19 | Hurter's Spadefoot | <i>Scaphiopus hurterii</i> | Amphibian |
| 19 | Lilliput | <i>Toxolasma parvum</i> | Mussel |
| 19 | Texas Lilliput | <i>Toxolasma texasiense</i> | Mussel |
| 19 | Tapered Pondhorn | <i>Uniomerus declivis</i> | Mussel |
| 19 | Pondhorn | <i>Uniomerus tetralasmus</i> | Mussel |
| 19 | Bell's Vireo | <i>Vireo bellii</i> | Bird |
| 17 | Highfin Carpsucker | <i>Carpionodes velifer</i> | Fish |
| 17 | Beach-dune Tiger Beetle | <i>Cicindela hirticollis</i> | Insect |
| 17 | Trumpeter Swan | <i>Cygnus buccinator</i> | Bird |
| 17 | Goldstripe Darter | <i>Etheostoma parvipinne</i> | Fish |
| 17 | Round Pigtoe | <i>Pleurobema sintoxia</i> | Mussel |
| 17 | Little Spectaclecase group | <i>Villosa sp. cf lienosa</i> | Mussel |
| 15 | Mole Salamander | <i>Ambystoma talpoideum</i> | Amphibian |

| | | | |
|----|------------------------|-------------------------------|-----------|
| 15 | Gorgone Checkerspot | <i>Chlosyne gorgone</i> | Insect |
| 15 | Monarch | <i>Danaus plexippus</i> | Insect |
| 15 | Lake Chubsucker | <i>Erimyzon sucetta</i> | Fish |
| 15 | Swamp Darter | <i>Etheostoma fusiforme</i> | Fish |
| 15 | Dwarf Salamander | <i>Eurycea quadridigitata</i> | Amphibian |
| 15 | Bird-voiced Treefrog | <i>Hyla avivoca</i> | Amphibian |
| 15 | Glossy Swampsnake | <i>Liodytes rigida</i> | Reptile |
| 15 | Shoal Chub | <i>Macrhybopsis hyostoma</i> | Fish |
| 15 | Long-tailed Weasel | <i>Mustela frenata</i> | Mammal |
| 15 | Slender Glass Lizard | <i>Ophisaurus attenuatus</i> | Reptile |
| 15 | Saddleback Darter | <i>Percina vigil</i> | Fish |
| 15 | American Golden-Plover | <i>Pluvialis dominica</i> | Bird |
| 15 | Broad-winged Skipper | <i>Poanes viator</i> | Insect |
| 15 | Southern Mapleleaf | <i>Quadrula apiculata</i> | Mussel |
| 15 | Fawnsfoot | <i>Truncilla donaciformis</i> | Mussel |
| 11 | Winter Stonefly | <i>Allocaonia malverna</i> | Insect |

Habitats that occur in the South Central Plains

Of the 37 terrestrial habitats in Arkansas, 17 occur in the South Central Plains ecoregion (Table 3.24). Of 18 ecobasins in Arkansas, two occur in the South Central Plains ecoregion (Figure 3.17). These associations are described in the Section 4. Terrestrial Habitats and Section 5. Aquatic Habitats.

Table 3.24. Terrestrial Habitats in the South Central Plains.

Habitat Name

Crop Land

Cultivated Forest

Herbaceous Wetland

Lower Mississippi Alluvial Plain Grand Prairie

Mud Flats

Pasture Land

Ponds, Lakes, and Water Holes

Urban/Suburban

West Gulf Coastal Plain Calcareous Prairie and Woodland

West Gulf Coastal Plain Pine-Hardwood Flatwoods

West Gulf Coastal Plain Large River Floodplain Forest

West Gulf Coastal Plain Pine-Hardwood Forest/Woodland

West Gulf Coastal Plain Red River Floodplain Forest

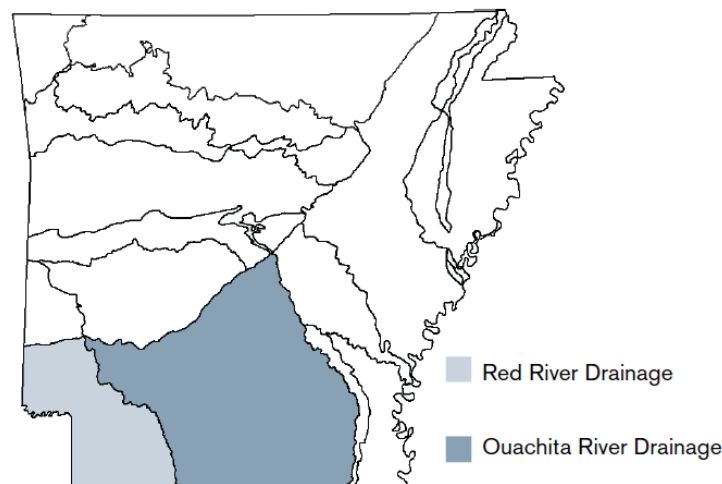
West Gulf Coastal Plain Sandhill Oak and Shortleaf Pine Forest/Woodland

West Gulf Coastal Plain Seepage Swamp and Baygall

West Gulf Coastal Plain Small Stream/River Forest

West Gulf Coastal Plain Wet Hardwood Flatwoods

Figure 3.17. Ecobasin Distribution in the South Central Plains.



Problems faced by Species of Greatest Conservation Need (SGCN)

Taxa association teams listed problems faced by SGCN individually in the Species Reports, pages 44-1113. A summary of the problems faced by SGCN in the South Central Plains is presented below. Each problem has a score which is a sum of all Species Priority Scores associated with species for which this problem was assigned. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species associated with problems listed here.

Table 3.25. Problems faced by SGCN.

| Problem faced | Score |
|-----------------------------------|-------|
| Agricultural practices | 2157 |
| Dam | 1783 |
| Forestry activities | 1536 |
| Grazing/Browsing | 1025 |
| Channel alteration | 993 |
| Resource extraction | 941 |
| Channel maintenance | 895 |
| Urban development | 646 |
| Water diversion | 643 |
| Road construction | 629 |
| Confined animal operations | 549 |
| Fire suppression | 450 |
| Conversion of riparian forest | 434 |
| Parasites/pathogens | 286 |
| Exotic species | 280 |
| Recreation | 257 |
| Commercial/industrial development | 237 |
| Predation | 198 |
| Commercial harvest | 115 |
| Non-point source pollution | 105 |
| unknown | 86 |
| Management of/for certain species | 74 |
| Municipal/Industrial point source | 69 |
| Crossbreeding | 48 |
| Interspecific competition | 48 |

Conservation actions needed in the South Central Plains

Descriptions of conservation actions linked to individual species on the list of SGCN are presented in the Species Reports, pages 44-1113. Below are categories of conservation actions recommended by the taxa association teams (Figure 3.18). An explanation of the categories follows in Table 3.26.

The score associated with the conservation action category is the sum of all priority scores associated with species for which a conservation action has been assigned, weighted by the importance of the conservation action category to the species. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species would be affected by actions within this conservation action category.

These scores may be used as guides to directing the apportionment of funding toward conservation actions benefiting habitats and species of greatest conservation need.

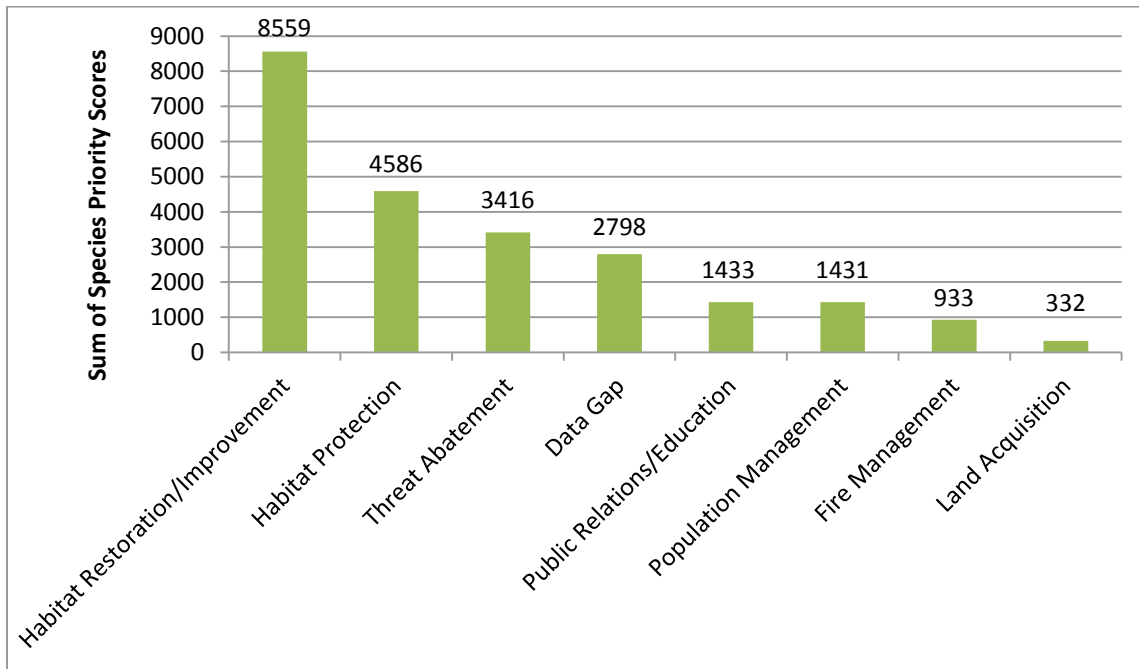


Figure 3.18. Conservation action categories recommended for the South Central Plains.

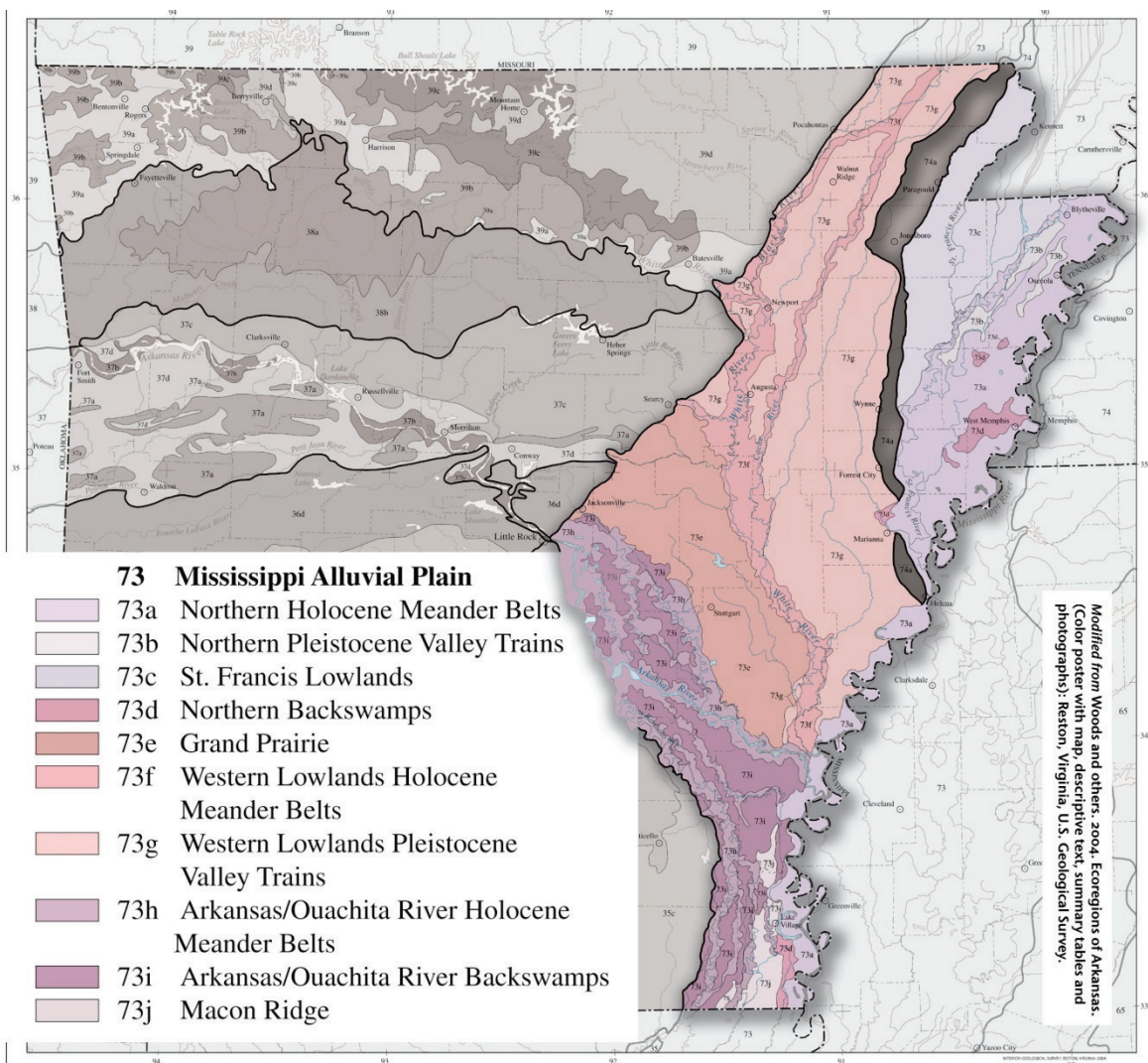
Mississippi Alluvial Plain (Ecoregion 73)

The Mississippi Alluvial Plain (73) extends along the Mississippi River from the confluence of the Ohio and Mississippi rivers southward to the Gulf of Mexico; temperatures and annual average precipitation increase toward the south. Ecoregion

73 is a broad, nearly level, agriculturally-dominated alluvial plain. It is veneered by Quaternary alluvium, loess, glacial outwash and lacustrine deposits. River terraces, swales and levees provide limited relief, but overall, the Mississippi Alluvial Plain (73) is flatter than neighboring ecoregions in Arkansas, including the South Central Plains (35).

Nearly flat, clayey, poorly-drained soils are widespread and characteristic. Streams and rivers have very low gradients and fine-grained substrates. Many reaches have ill-defined stream channels.

Figure 3.19. Mississippi Alluvial Plain ecoregion.



Ecoregion 73 provides important habitat for fish and wildlife and includes the largest continuous system of wetlands in North America. It is also a major bird migration corridor used in fall and spring migrations.

Potential natural vegetation is largely southern floodplain forest and is unlike the oak–hickory and oak–hickory–pine forests that dominate uplands to the west in Ecoregions 35, 36, 37, 38 and 39; loblolly pine, so common in the South Central Plains (35), is not native to most forests in the Arkansas portion of Ecoregion 73.

The Mississippi Alluvial Plain (73) has been widely cleared and drained for cultivation; this widespread loss or degradation of forest and wetland habitat has impacted wildlife and reduced bird populations.

Presently, most of the northern and central sections of Ecoregion 73, including Arkansas, are in cropland and receive heavy treatments of insecticides and herbicides; soybeans, cotton and rice are the major crops and aquaculture is also important. Agricultural runoff containing fertilizers, herbicides, pesticides and livestock waste have degraded surficial water quality.

Concentrations of total suspended solids, total dissolved solids, total phosphorus, ammonia nitrogen, sulfates, turbidity, biological oxygen demand, chlorophyll a and fecal coliform are high in the rivers, streams and ditches of Ecoregion 73; they are often much greater than elsewhere in Arkansas, increase with increasing watershed size and are greatest during the spring, high-flow season.

Fish communities in least altered streams typically have an insignificant proportion of sensitive species; sunfishes are dominant followed by minnows. Man-made flood control levees typically flank the Mississippi River and, in effect, separate the river and its adjoining habitat from the remainder of its natural hydrologic system; in so doing, they interfere with sediment transfer within Ecoregion 73 and have reduced available habitat for many species.

Between the levees that parallel the Mississippi River is a corridor known as the “batture lands”. Batture lands are hydrologically linked to the Mississippi River, flood-prone and contain remnant habitat for “big river” species (e.g., pallid sturgeon) as well as river-front plant communities; they are too narrow to map as a separate level IV ecoregion.

Earthquakes in the early nineteenth century offset river courses in Ecoregion 73. Small to medium size earthquakes still occur frequently; their shocks are magnified by the alluvial plain’s unconsolidated deposits, creating regional land management issues.

Northern Holocene Meander Belts

73a. The Northern Holocene Meander Belts ecoregion is a flat to nearly flat flood-plain containing the meander belts of the present and past courses of the Mississippi River. Point bars, natural levees, swales and abandoned channels marked by meander scars and oxbow lakes are

common and characteristic.

Ecoregion 73a tends to be slightly lower in elevation than adjacent ecoregions. Its abandoned channel network is more extensive than in the Southern Holocene Meander Belts (73k) of Louisiana. Ecoregion 73a is underlain by Holocene alluvium; it lacks the Pleistocene glacial outwash deposits of Ecoregion 73b. Soils on natural levees are relatively coarse-textured, well-drained and higher than those on levee back slopes and point bars; they grade to very heavy, poorly-drained clays in abandoned channels and swales. Overall, soils are not as sandy as the Northern Pleistocene Valley Trains (73b) and are finer and have more organic matter than the Arkansas/Ouachita River Holocene Meander Belts (73h).

Natural vegetation varies with site characteristics. Younger sandy soils have fewer oaks and more sugarberry, elm, ash, pecan, cottonwood and sycamore than Ecoregion 73d.

Widespread draining of wetlands and removal of bottomland forests for cropland has occurred. Soybeans, cotton, corn, sorghum, wheat and rice are the main crops. Catfish farms are increasingly common and contribute to the already large agricultural base.

Northern Pleistocene Valley Trains

73b. The Northern Pleistocene Valley Trains ecoregion is a flat to irregular alluvial plain composed of sandy to gravelly glacial outwash overlain by alluvium; sand sheets, widespread in the St. Francis Lowlands (73c), are absent. The Pleistocene outwash deposits of Ecoregion 73b are usually coarser and better drained than the alluvial deposits of Ecoregions 73a, 73d and 73f. They were transported to Arkansas by the Mississippi River and its tributaries and have been subsequently eroded, reduced in size and fragmented by laterally migrating channels or buried by thick sediments.

Ecoregion 73b has little local relief or stream incision. Elevations tend to be slightly higher than adjacent parts of Ecoregions 73a and 73d.

Cropland is extensive and has largely replaced the original forests; soybeans are the main crop and cotton is also produced. The few remaining forests are dominated by species typical of higher bottomlands such as Nuttall oak, willow oak, swamp chestnut oak, sugarberry and green ash. There are more lowland oaks in Ecoregion 73b than in Ecoregions 73a and 73d.

St. Francis Lowlands

73c. The St. Francis Lowlands ecoregion is flat to irregular and has many relict channels. Ecoregion 73c is mainly composed of late-Wisconsinan age glacial outwash deposits and, in contrast to Ecoregion 73b, is partly covered by undulating sand sheets.

“Sand blows” and “sunk lands” occur and have been attributed to the New Madrid earthquakes of 1811-12 (~ magnitude 8). Loess, which veneers older outwash deposits in Ecoregion 73g, is

absent. Topography, lithology and hydrology vary over short distances and natural vegetation varies with site characteristics.

Cropland is extensive and has largely replaced the original forests; soybeans, corn, and cotton are the most common crops but wheat, sorghum and rice are also produced.

Although the streams of the St. Francis Lowlands (73c) have been extensively channelized, water quality tends to be better than in the less channelized areas of Ecoregion 73g because of a lack of loess veneer in Ecoregion 73c.

Northern Backswamps

73d. The Northern Backswamps ecoregion is made up of low-lying overflow areas on floodplains and includes poorly-drained flats and swales. Water often collects in its marshes, swamps, oxbow lakes, ponds and low gradient streams.

Soils developed from clayey alluvium including overbank and slack-water deposits; they commonly have a high shrink-swell potential and are locally rich in organic material. Water levels are seasonally variable.

Native vegetation in the wettest areas is generally dominated by bald cypress–water tupelo forest; slightly higher and better drained sites have overcup oak–water hickory forest and the highest, best-drained areas support Nuttall oak forest. Today, bottomland forest, cropland, farmed wetlands, pastureland and catfish farms occur.

Backswamps are important areas for capturing excess nutrients from local waters and for storing water during heavy rain events.

Grand Prairie

73e. The Grand Prairie ecoregion is a broad, loess-covered terrace formerly dominated by tall grass prairie and now primarily used as cropland. It is typically almost level. However, incised perennial and intermittent streams occur and a narrow belt of low hills is found in the east.

Prior to the 19th century, flatter areas with slowly to very slowly permeable soils (often containing fragipans) supported Arkansas' largest prairie. They were generally bounded by open woodland or savanna. In all, about 400,000 acres of prairie grasses and forbs occurred in Ecoregion 73e and were a sharp contrast to the bottomland forests that once dominated other parts of the Mississippi Alluvial Plain (73). Low hills were covered by upland deciduous forest containing white oak, black oak and southern red oak. Drier ridges were dominated by post oak. Narrow floodplains had bottomland hardwood forests.

Cropland has now largely replaced the native vegetation. In the process, some prairie species have been extirpated from the ecoregion (e.g., greater prairie chicken); others have been sharply

reduced in population and restricted to a few prairie remnants.

Distinctively, rice is the main crop; soybeans, cotton, corn and wheat are also grown. Rice fields provide habitat and forage for large numbers and many species of waterfowl; duck and goose hunting occurs.



Western Lowlands Holocene Meander Belts

Western Lowlands Holocene Meander Belts

73f. The Western Lowlands Holocene Meander Belts ecoregion is a flat to nearly flat floodplain containing the meander belts of the present and past courses of the White, Black and Cache rivers. Its meander belts are narrower than the Northern Holocene Meander Belts (73a), but point bars, natural levees, swales and abandoned channels are common in both regions.

Soils on natural levees are relatively coarse-textured, well-drained and higher than those on levee back slopes and point bars; they grade to heavy, poorly-drained clays in abandoned channels and swales.

Natural vegetation varies with site characteristics. Today, Ecoregion 73f contains some of the most extensive remaining tracts of native bottomland hardwood forest in the Mississippi Alluvial Plain (73). Cropland also occurs.

Flood control levees are less developed and riverine processes are more natural and dynamic than in Ecoregion 73a. Backwater flooding in the White River occurs well upstream of its confluence with the higher Mississippi River; as a result, riparian and natural levee communities are less common and oak-dominated communities are more widespread than in Ecoregion 73a.

Wetlands in the Cache-lower White River systems have been designated as one of only nineteen “Wetlands of International Importance” in the United States by the Ramsar Convention on Wetlands.

Regulation of White River flow, in combination with the downcutting of the Mississippi River for navigation (and related wing levees and cutoffs), have altered flood regimes on the lower White River, thereby increasing stream bank instability and bottomland forest mortality in Ecoregion 73f.

Most streams and rivers in Ecoregion 73f are fed by the Ozark Highlands and Boston Mountains; sediment load is generally less than in the Mississippi River.

Western Lowlands Pleistocene Valley Trains

73g. The terraces of the Western Lowlands Pleistocene Valley Trains are largely composed of Pleistocene glacial outwash that was transported to Arkansas by the Mississippi River and deposited by braided streams. Physiography is widely muted by windblown silt deposits (loess), sand sheets, or sand dunes; loess and sand sheets are more widespread than in the Northern Pleistocene Valley Trains (73b) and St. Francis Lowlands (73c).

Many interdunal depressions called “sandponds” occur and are either in contact with the water table or have a perched aquifer. Elevations are higher than adjacent parts of the Northern Holocene Meander Belts (73a) and Western Lowlands Holocene Meander Belts (73f); consequently, uplands are rarely if ever flooded.

Native plant communities are different from more frequently inundated ecoregions; for example, post oak and loblolly pine are native to Ecoregion 73g but are absent from lower, overflow areas. Sandpond forest communities are generally dominated by overcup oak, water hickory, willow oak and pin oak; understory in a few sandponds may include pondberry (*Lindera melissifolia*), federally listed as endangered.

Today, cropland is extensive and the main crops are soybeans and cotton. Commercial crawfish, baitfish and catfish farms are common. The Western Lowlands Pleistocene Valley Trains (73g) ecoregion is a wintering ground for waterfowl. Duck hunting is widespread.

Arkansas/Ouachita River Holocene Meander Belts

73h. The Arkansas/Ouachita River Holocene Meander Belts ecoregion is a flat to nearly flat floodplain containing the meander belts of the present and past courses of the lower Arkansas and Ouachita rivers. Point bars, natural levees, swales and abandoned channels, marked by meander scars and oxbow lakes, are common and characteristic. Soils on natural levees are relatively coarse-textured, well-drained and higher than those on levee back slopes and point bars; they grade to heavy, poorly-drained clays in abandoned channels and swales. Overall, soils have less organic matter than in the Northern Holocene Meander Belts (73a).



Arkansas/Ouachita River Holocene Meander Belts

The modern, active Arkansas River meander belt comprises only a small portion of Ecoregion 73h. The rest of Ecoregion 73h contains small streams flowing in abandoned courses of the Arkansas River. These small streams are usually underfit relative to the older channels, higher than the adjacent Arkansas/Ouachita River Backswamps (73i) and have small watersheds. Bayou Bartholomew inhabits the longest section of abandoned channels. It flows against the edge of and receives drainage from the South Central Plains (35); habitat diversity is sufficient for Bayou

Bartholomew to be one of the most species-rich streams in North America. The pink mucket and the fat pocketbook mussels, both federally listed as endangered, have been collected from the Bayou.

Within an abandoned course, bald cypress and water tupelo often grow in the modern stream channel adjacent to a strip of wet bottomland hardwood forest dominated by overcup oak and water hickory. In the rest of Ecoregion 73h, cropland and pastureland are widespread; soybeans, rice and wheat are the main crops.

Arkansas/Ouachita River Backswamps

73i. The flats, swales and natural levees of the Arkansas/Ouachita River Backswamps ecoregion include the slackwater areas along the Arkansas and Ouachita rivers, where water often collects into marshes, swamps, oxbow lakes, ponds and sloughs. Ecoregion 73i, in contrast to the Northern Backswamps (73d), is widely veneered with natural levee deposits. Soils derived from these natural levee deposits are coarser and are not as poorly drained as the clayey soils of the Northern Backswamps (73d). As a result, willow oak and water oak are native instead of species adapted to wetter overflow conditions.

Drainage canals and ditches are common. This artificial drainage, together with the sandy veneer of natural levee deposits, help explain why Ecoregion 73i is more easily and widely farmed than the Northern Backswamps (73d). Rice, cotton and soybeans are important crops but forests and forested wetlands also occur.

Macon Ridge

73j. Macon Ridge is underlain almost entirely by Pleistocene glacial outwash deposits that were transported to Arkansas by the Mississippi River and deposited by braided streams. It is veneered by windblown silt deposits (i.e. loess) like Ecoregions 73e, 73g and 74a. Soils are influenced by loess and contrast with the alluvial soils of Ecoregions 73a and 73h.

Macon Ridge (73j) is a continuation of the Western Lowlands Pleistocene Valley Trains (73g) but is better drained and supports drier plant communities. Its eastern edge is 20 to 30 feet above the adjacent, lithologically and physiographically distinct, Northern Holocene Meander Belts (73a).

The western side of Macon Ridge (73j) is lower than the eastern side and is about the same elevation as the lithologically and physiographically distinct Arkansas/ Ouachita River Holocene Meander Belts (73h).

Native forest types range from those of better drained bottomlands dominated by willow oak, water oak and swamp chestnut oak to upland hardwood forests dominated by white oak, southern red oak and post oak. Prairies and loblolly pine- dominated areas may also have occurred on Macon Ridge (73j).

Today, Ecoregion 73j is a mosaic of pastureland, forest and cropland. Soybeans, cotton and oats are major crops (adapted from Woods and others 2004).

Mississippi Alluvial Plain Ecoregion: Species of Greatest Conservation Need (SGCN)

Species of greatest conservation need (SGCN) in the Mississippi Alluvial Plain are presented by taxa association (Table 3.27). A higher priority score indicates a greater need for actions to conserve the species. A ranked list of all SGCN associated with the ecoregion is presented in Table 3.28.

Table 3.27. SGCN by taxa association.

| Taxa Association | Common Name | Scientific Name | Priority Score |
|----------------------------|----------------------|---------------------------------------|---------------------------|
| Amphibian | Illinois Chorus Frog | <i>Pseudacris illinoensis</i> | 43 |
| | Crawfish Frog | <i>Lithobates areolatus</i> | 23 |
| | Eastern Spadefoot | <i>Scaphiopus holbrookii</i> | 19 |
| | Mole Salamander | <i>Ambystoma talpoideum</i> | 15 |
| | Dwarf Salamander | <i>Eurycea quadridigitata</i> | 15 |
| | Bird-voiced Treefrog | <i>Hyla avivoca</i> | 15 |
| | Bird | Piping Plover | <i>Charadrius melodus</i> |
| Red-cockaded Woodpecker | | <i>Picoides borealis</i> | 43 |
| Henslow's Sparrow | | <i>Ammodramus henslowii</i> | 33 |
| Sprague's Pipit | | <i>Anthus spragueii</i> | 33 |
| King Rail | | <i>Rallus elegans</i> | 33 |
| Interior Least Tern | | <i>Sternula antillarum athalassos</i> | 31 |
| Buff-breasted Sandpiper | | <i>Calidris subruficollis</i> | 29 |
| Swallow-tailed Kite | | <i>Elanoides forficatus</i> | 29 |
| Rusty Blackbird | | <i>Euphagus carolinus</i> | 29 |
| Bewick's Wren | | <i>Thryomanes bewickii</i> | 29 |
| Ruddy Turnstone | | <i>Arenaria interpres</i> | 24 |
| Smith's Longspur | | <i>Calcarius pictus</i> | 24 |
| Common Nighthawk | | <i>Chordeiles minor</i> | 24 |
| Migrant Loggerhead Shrike | | <i>Lanius ludovicianus</i> | 24 |
| Yellow-crowned Night-Heron | | <i>Nyctanassa violacea</i> | 24 |
| Black-bellied Plover | | <i>Pluvialis squatarola</i> | 24 |
| American Woodcock | | <i>Scolopax minor</i> | 24 |
| Cerulean Warbler | | <i>Setophaga cerulea</i> | 24 |
| American Bittern | | <i>Botaurus lentiginosus</i> | 23 |
| Willow Flycatcher | | <i>Empidonax traillii</i> | 23 |
| Purple Gallinule | | <i>Porphyrio martinicus</i> | 23 |
| Le Conte's Sparrow | | <i>Ammodramus leconteii</i> | 21 |
| Sedge Wren | | <i>Cistothorus platensis</i> | 21 |
| Sharp-shinned Hawk | | <i>Accipiter striatus</i> | 19 |
| Grasshopper Sparrow | | <i>Ammodramus savannarum</i> | 19 |

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|------|---------------------------|--------------------------------|----|
| | American Black Duck | <i>Anas rubripes</i> | 19 |
| | Anhinga | <i>Anhinga anhinga</i> | 19 |
| | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | 19 |
| | Sanderling | <i>Calidris alba</i> | 19 |
| | Dunlin | <i>Calidris alpina</i> | 19 |
| | Stilt Sandpiper | <i>Calidris himantopus</i> | 19 |
| | Chimney Swift | <i>Chaetura pelagica</i> | 19 |
| | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | 19 |
| | Northern Bobwhite | <i>Colinus virginianus</i> | 19 |
| | Tricolored Heron | <i>Egretta tricolor</i> | 19 |
| | American Kestrel | <i>Falco sparverius</i> | 19 |
| | Common Gallinule | <i>Gallinula galeata</i> | 19 |
| | Purple Finch | <i>Haemorhous purpureus</i> | 19 |
| | Wood Thrush | <i>Hylocichla mustelina</i> | 19 |
| | Least Bittern | <i>Ixobrychus exilis</i> | 19 |
| | Short-billed Dowitcher | <i>Limnodromus griseus</i> | 19 |
| | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | 19 |
| | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | 19 |
| | Bell's Vireo | <i>Vireo bellii</i> | 19 |
| | Trumpeter Swan | <i>Cygnus buccinator</i> | 17 |
| | American Golden-Plover | <i>Pluvialis dominica</i> | 15 |
| Fish | Alabama Shad | <i>Alosa alabamae</i> | 52 |
| | Pallid Sturgeon | <i>Scaphirhynchus albus</i> | 48 |
| | Sicklefin Chub | <i>Macrhybopsis meeki</i> | 43 |
| | Crystal Darter | <i>Crystallaria asprella</i> | 38 |
| | Stargazing Darter | <i>Percina uranidea</i> | 38 |
| | Western Sand Darter | <i>Ammocrypta clara</i> | 33 |
| | Bluehead Shiner | <i>Pteronotropis hubbsi</i> | 33 |
| | Silver Redhorse | <i>Moxostoma anisurum</i> | 29 |
| | Stonecat | <i>Noturus flavus</i> | 29 |
| | Lake Sturgeon | <i>Acipenser fulvescens</i> | 27 |
| | Alligator Gar | <i>Atractosteus spatula</i> | 27 |
| | Plains Minnow | <i>Hybognathus placitus</i> | 27 |
| | American Eel | <i>Anguilla rostrata</i> | 24 |
| | Paddlefish | <i>Polyodon spathula</i> | 24 |
| | Blue Sucker | <i>Cycleptus elongatus</i> | 23 |
| | Sabine Shiner | <i>Notropis sabiniae</i> | 23 |
| | Suckermouth Minnow | <i>Phenacobius mirabilis</i> | 23 |
| | Flathead Chub | <i>Platygobio gracilis</i> | 23 |
| | Central Mudminnow | <i>Umbra limi</i> | 23 |
| | Brown Bullhead | <i>Ameiurus nebulosus</i> | 19 |
| | Goldeye | <i>Hiodon alosoides</i> | 19 |
| | Mooneye | <i>Hiodon tergisus</i> | 19 |
| | American Brook Lamprey | <i>Lethenteron appendix</i> | 19 |
| | Pealip Redhorse | <i>Moxostoma pisolabrum</i> | 19 |
| | Striped Mullet | <i>Mugil cephalus</i> | 19 |

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|--------|------------------------------|---------------------------------------|----|
| | Channel Shiner | <i>Notropis wickliffi</i> | 19 |
| | Gilt Darter | <i>Percina evides</i> | 19 |
| | Highfin Carpsucker | <i>Carpionodes velifer</i> | 17 |
| | Goldstripe Darter | <i>Etheostoma parvipinne</i> | 17 |
| | Lake Chubsucker | <i>Erimyzon sucetta</i> | 15 |
| | Swamp Darter | <i>Etheostoma fusiforme</i> | 15 |
| | Saddleback Darter | <i>Percina vigil</i> | 15 |
| Insect | Dukes' Skipper | <i>Euphyes dukesi</i> | 32 |
| | Prairie Mole Cricket | <i>Gryllotalpa major</i> | 32 |
| | Lace-winged Roadside-Skipper | <i>Amblyscirtes aesculapius</i> | 27 |
| | Tiger Beetle | <i>Cicindela lepida</i> | 25 |
| | Giant Stag Beetle | <i>Lucanus elaphus</i> | 25 |
| | Diana | <i>Speyeria diana</i> | 25 |
| | Yehl Skipper | <i>Poanes yehl</i> | 23 |
| | Golden-banded Skipper | <i>Autochton cellus</i> | 21 |
| | Ant-like Tiger Beetle | <i>Cicindela cursitans</i> | 21 |
| | Woodland Tiger Beetle | <i>Cicindela unipunctata</i> | 21 |
| | Red Milkweed Beetle | <i>Tetraopes quinquemaculatus</i> | 21 |
| | Six-banded Longhorn Beetle | <i>Dryobius sexnotatus</i> | 19 |
| | Dion Skipper | <i>Euphyes dion</i> | 19 |
| | Gray Comma | <i>Polygonia progne</i> | 19 |
| | Oak Hairstreak | <i>Satyrium favonius ontario</i> | 19 |
| | Beach-dune Tiger Beetle | <i>Cicindela hirticollis</i> | 17 |
| | Gorgone Checkerspot | <i>Chlosyne gorgone</i> | 15 |
| | Monarch | <i>Danaus plexippus</i> | 15 |
| | Broad-winged Skipper | <i>Poanes viator</i> | 15 |
| | Twelve-spotted Tiger Beetle | <i>Cicindela duodecimguttata</i> | 13 |
| | Winter Stonefly | <i>Allocaenia malverna</i> | 11 |
| | Bronze Copper | <i>Lycaena hyllus</i> | 11 |
| Mammal | Northern Long-eared Bat | <i>Myotis septentrionalis</i> | 63 |
| | Indiana Bat | <i>Myotis sodalis</i> | 62 |
| | Little Brown Bat | <i>Myotis lucifugus</i> | 33 |
| | Rafinesque's Big-Eared Bat | <i>Corynorhinus rafinesquii</i> | 29 |
| | Southeastern Bat | <i>Myotis austroriparius</i> | 24 |
| | Eastern Harvest Mouse | <i>Reithrodontomys humulis</i> | 19 |
| | Southern Bog Lemming | <i>Synaptomys cooperi</i> | 19 |
| | American Badger | <i>Taxidea taxus</i> | 16 |
| | Long-tailed Weasel | <i>Mustela frenata</i> | 15 |
| | Western Harvest Mouse | <i>Reithrodontomys megalotis</i> | 15 |
| Mussel | Scaleshell | <i>Leptodea leptodon</i> | 76 |
| | Rabbitsfoot | <i>Quadrula cylindrica cylindrica</i> | 52 |
| | Pink Mucket | <i>Lampsilis abrupta</i> | 46 |
| | Fat Pocketbook | <i>Potamilus capax</i> | 46 |
| | Western Fanshell | <i>Cyprogenia aberti</i> | 43 |
| | Pyramid Pigtoe | <i>Pleurobema rubrum</i> | 38 |
| | Salamander Mussel | <i>Simpsonaias ambigua</i> | 34 |

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|---------|----------------------------|-------------------------------------|----|
| | Purple Lilliput | <i>Toxolasma lividum</i> | 33 |
| | Pink Heelsplitter | <i>Potamilus alatus</i> | 23 |
| | Ouachita Kidneyshell | <i>Ptychobranchnus occidentalis</i> | 23 |
| | Elktoe | <i>Alasmidonta marginata</i> | 19 |
| | Hickorynut | <i>Obovaria olivaria</i> | 19 |
| | Ohio Pigtoe | <i>Pleurobema cordatum</i> | 19 |
| | Gulf Mapleleaf | <i>Quadrula nobilis</i> | 19 |
| | Lilliput | <i>Toxolasma parvum</i> | 19 |
| | Texas Lilliput | <i>Toxolasma texasiense</i> | 19 |
| | Tapered Pondhorn | <i>Uniomereus declivis</i> | 19 |
| | Pondhorn | <i>Uniomereus tetralasmus</i> | 19 |
| | Round Pigtoe | <i>Pleurobema sintoxia</i> | 17 |
| | Little Spectaclecase group | <i>Villosa sp. cf. lienosa</i> | 17 |
| | Southern Mapleleaf | <i>Quadrula apiculata</i> | 15 |
| | Fawnsfoot | <i>Truncilla donaciformis</i> | 15 |
| Reptile | Common Wormsnake | <i>Carphophis amoenus</i> | 19 |
| | Chicken Turtle | <i>Deirochelys reticularia</i> | 19 |
| | Graham's Crayfish Snake | <i>Regina grahamii</i> | 19 |
| | Ornate Box Turtle | <i>Terrapene ornata</i> | 19 |
| | Glossy Swampsnake | <i>Liodytes rigida</i> | 15 |
| | Slender Glass Lizard | <i>Ophisaurus attenuatus</i> | 15 |

Table 3.28. Species of greatest conservation need (SGCN) in the Mississippi Alluvial Plain ranked by priority score. A higher priority score indicates a greater need for actions to conserve the species. Of the 377 SGCN, 146 occur in this ecoregion.

| Priority Score | Common Name | Scientific Name | Taxa Association |
|----------------|------------------------------|---------------------------------------|------------------|
| 76 | Scaleshell | <i>Leptodea leptodon</i> | Mussel |
| 63 | Northern Long-eared Bat | <i>Myotis septentrionalis</i> | Mammal |
| 62 | Indiana Bat | <i>Myotis sodalis</i> | Mammal |
| 52 | Alabama Shad | <i>Alosa alabamae</i> | Fish |
| 52 | Rabbitsfoot | <i>Quadrula cylindrica cylindrica</i> | Mussel |
| 48 | Pallid Sturgeon | <i>Scaphirhynchus albus</i> | Fish |
| 46 | Pink Mucket | <i>Lampsilis abrupta</i> | Mussel |
| 46 | Fat Pocketbook | <i>Potamilus capax</i> | Mussel |
| 43 | Piping Plover | <i>Charadrius melodus</i> | Bird |
| 43 | Western Fanshell | <i>Cyprogenia aberti</i> | Mussel |
| 43 | Sicklefin Chub | <i>Macrhybopsis meeki</i> | Fish |
| 43 | Red-cockaded Woodpecker | <i>Picoides borealis</i> | Bird |
| 43 | Illinois Chorus Frog | <i>Pseudacris illinoensis</i> | Amphibian |
| 38 | Crystal Darter | <i>Crystallaria asprella</i> | Fish |
| 38 | Stargazing Darter | <i>Percina uranidea</i> | Fish |
| 38 | Pyramid Pigtoe | <i>Pleurobema rubrum</i> | Mussel |
| 34 | Salamander Mussel | <i>Simpsonaias ambigua</i> | Mussel |
| 33 | Western Sand Darter | <i>Ammocrypta clara</i> | Fish |
| 33 | Henslow's Sparrow | <i>Ammodramus henslowii</i> | Bird |
| 33 | Sprague's Pipit | <i>Anthus spragueii</i> | Bird |
| 33 | Little Brown Bat | <i>Myotis lucifugus</i> | Mammal |
| 33 | Bluehead Shiner | <i>Pteronotropis hubbsi</i> | Fish |
| 33 | King Rail | <i>Rallus elegans</i> | Bird |
| 33 | Purple Lilliput | <i>Toxolasma lividum</i> | Mussel |
| 32 | Dukes' Skipper | <i>Euphyes dukesi</i> | Insect |
| 32 | Prairie Mole Cricket | <i>Gryllotalpa major</i> | Insect |
| 31 | Interior Least Tern | <i>Sternula antillarum athalassos</i> | Bird |
| 29 | Buff-breasted Sandpiper | <i>Calidris subruficollis</i> | Bird |
| 29 | Rafinesque's Big-Eared Bat | <i>Corynorhinus rafinesquii</i> | Mammal |
| 29 | Swallow-tailed Kite | <i>Elanoides forficatus</i> | Bird |
| 29 | Rusty Blackbird | <i>Euphagus carolinus</i> | Bird |
| 29 | Silver Redhorse | <i>Moxostoma anisurum</i> | Fish |
| 29 | Stonecat | <i>Noturus flavus</i> | Fish |
| 29 | Bewick's Wren | <i>Thryomanes bewickii</i> | Bird |
| 27 | Lake Sturgeon | <i>Acipenser fulvescens</i> | Fish |
| 27 | Lace-winged Roadside-Skipper | <i>Amblyscirtes aesculapius</i> | Insect |

| | | | |
|----|----------------------------|------------------------------------|-----------|
| 27 | Alligator Gar | <i>Atractosteus spatula</i> | Fish |
| 27 | Plains Minnow | <i>Hybognathus placitus</i> | Fish |
| 25 | Tiger Beetle | <i>Cicindela lepida</i> | Insect |
| 25 | Giant Stag Beetle | <i>Lucanus elaphus</i> | Insect |
| 25 | Diana | <i>Speyeria diana</i> | Insect |
| 24 | American Eel | <i>Anguilla rostrata</i> | Fish |
| 24 | Ruddy Turnstone | <i>Arenaria interpres</i> | Bird |
| 24 | Smith's Longspur | <i>Calcarius pictus</i> | Bird |
| 24 | Common Nighthawk | <i>Chordeiles minor</i> | Bird |
| 24 | Migrant Loggerhead Shrike | <i>Lanius ludovicianus</i> | Bird |
| 24 | Southeastern Bat | <i>Myotis austroriparius</i> | Mammal |
| 24 | Yellow-crowned Night-Heron | <i>Nyctanassa violacea</i> | Bird |
| 24 | Black-bellied Plover | <i>Pluvialis squatarola</i> | Bird |
| 24 | Paddlefish | <i>Polyodon spathula</i> | Fish |
| 24 | American Woodcock | <i>Scolopax minor</i> | Bird |
| 24 | Cerulean Warbler | <i>Setophaga cerulea</i> | Bird |
| 23 | American Bittern | <i>Botaurus lentiginosus</i> | Bird |
| 23 | Blue Sucker | <i>Cycleptus elongatus</i> | Fish |
| 23 | Willow Flycatcher | <i>Empidonax traillii</i> | Bird |
| 23 | Crawfish Frog | <i>Lithobates areolatus</i> | Amphibian |
| 23 | Sabine Shiner | <i>Notropis sabinae</i> | Fish |
| 23 | Suckermouth Minnow | <i>Phenacobius mirabilis</i> | Fish |
| 23 | Flathead Chub | <i>Platygobio gracilis</i> | Fish |
| 23 | Yehl Skipper | <i>Poanes yehl</i> | Insect |
| 23 | Purple Gallinule | <i>Porphyrio martinicus</i> | Bird |
| 23 | Pink Heelsplitter | <i>Potamilus alatus</i> | Mussel |
| 23 | Ouachita Kidneyshell | <i>Ptychobranthus occidentalis</i> | Mussel |
| 23 | Central Mudminnow | <i>Umbra limi</i> | Fish |
| 21 | Le Conte's Sparrow | <i>Ammodramus leconteii</i> | Bird |
| 21 | Golden-banded Skipper | <i>Autochton cellus</i> | Insect |
| 21 | Ant-like Tiger Beetle | <i>Cicindela cursitans</i> | Insect |
| 21 | Woodland Tiger Beetle | <i>Cicindela unipunctata</i> | Insect |
| 21 | Sedge Wren | <i>Cistothorus platensis</i> | Bird |
| 21 | Red Milkweed Beetle | <i>Tetraopes quinque maculatus</i> | Insect |
| 19 | Sharp-shinned Hawk | <i>Accipiter striatus</i> | Bird |
| 19 | Elktoe | <i>Alasmidonta marginata</i> | Mussel |
| 19 | Brown Bullhead | <i>Ameiurus nebulosus</i> | Fish |
| 19 | Grasshopper Sparrow | <i>Ammodramus savannarum</i> | Bird |
| 19 | American Black Duck | <i>Anas rubripes</i> | Bird |
| 19 | Anhinga | <i>Anhinga anhinga</i> | Bird |
| 19 | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | Bird |
| 19 | Sanderling | <i>Calidris alba</i> | Bird |
| 19 | Dunlin | <i>Calidris alpina</i> | Bird |

| | | | |
|----|----------------------------|----------------------------------|-----------|
| 19 | Stilt Sandpiper | <i>Calidris himantopus</i> | Bird |
| 19 | Common Wormsnake | <i>Carphophis amoenus</i> | Reptile |
| 19 | Chimney Swift | <i>Chaetura pelagica</i> | Bird |
| 19 | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | Bird |
| 19 | Northern Bobwhite | <i>Colinus virginianus</i> | Bird |
| 19 | Chicken Turtle | <i>Deirochelys reticularia</i> | Reptile |
| 19 | Six-banded Longhorn Beetle | <i>Dryobius sexnotatus</i> | Insect |
| 19 | Tricolored Heron | <i>Egretta tricolor</i> | Bird |
| 19 | Dion Skipper | <i>Euphyes dion</i> | Insect |
| 19 | American Kestrel | <i>Falco sparverius</i> | Bird |
| 19 | Common Gallinule | <i>Gallinula galeata</i> | Bird |
| 19 | Purple Finch | <i>Haemorhous purpureus</i> | Bird |
| 19 | Goldeye | <i>Hiodon alosoides</i> | Fish |
| 19 | Mooneye | <i>Hiodon tergisus</i> | Fish |
| 19 | Wood Thrush | <i>Hylocichla mustelina</i> | Bird |
| 19 | Least Bittern | <i>Ixobrychus exilis</i> | Bird |
| 19 | American Brook Lamprey | <i>Lethenteron appendix</i> | Fish |
| 19 | Short-billed Dowitcher | <i>Limnodromus griseus</i> | Bird |
| 19 | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | Bird |
| 19 | Pealip Redhorse | <i>Moxostoma pisolabrum</i> | Fish |
| 19 | Striped Mullet | <i>Mugil cephalus</i> | Fish |
| 19 | Channel Shiner | <i>Notropis wickliffi</i> | Fish |
| 19 | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | Bird |
| 19 | Hickorynut | <i>Obovaria olivaria</i> | Mussel |
| 19 | Gilt Darter | <i>Percina evides</i> | Fish |
| 19 | Ohio Pigtoe | <i>Pleurobema cordatum</i> | Mussel |
| 19 | Gray Comma | <i>Polygonia progne</i> | Insect |
| 19 | Gulf Mapleleaf | <i>Quadrula nobilis</i> | Mussel |
| 19 | Graham's Crayfish Snake | <i>Regina grahamii</i> | Reptile |
| 19 | Eastern Harvest Mouse | <i>Reithrodontomys humulis</i> | Mammal |
| 19 | Oak Hairstreak | <i>Satyrium favonius ontario</i> | Insect |
| 19 | Eastern Spadefoot | <i>Scaphiopus holbrookii</i> | Amphibian |
| 19 | Southern Bog Lemming | <i>Synaptomys cooperi</i> | Mammal |
| 19 | Ornate Box Turtle | <i>Terrapene ornata</i> | Reptile |
| 19 | Lilliput | <i>Toxolasma parvum</i> | Mussel |
| 19 | Texas Lilliput | <i>Toxolasma texasiense</i> | Mussel |
| 19 | Tapered Pondhorn | <i>Uniomerus declivis</i> | Mussel |
| 19 | Pondhorn | <i>Uniomerus tetralasmus</i> | Mussel |
| 19 | Bell's Vireo | <i>Vireo bellii</i> | Bird |
| 17 | Highfin Carpsucker | <i>Carpionodes velifer</i> | Fish |
| 17 | Beach-dune Tiger Beetle | <i>Cicindela hirticollis</i> | Insect |
| 17 | Trumpeter Swan | <i>Cygnus buccinator</i> | Bird |
| 17 | Goldstripe Darter | <i>Etheostoma parvipinne</i> | Fish |

| | | | |
|----|-----------------------------|----------------------------------|-----------|
| 17 | Round Pigtoe | <i>Pleurobema sintoxia</i> | Mussel |
| 17 | Little Spectaclecase group | <i>Villosa sp. cf lienosa</i> | Mussel |
| 16 | American Badger | <i>Taxidea taxus</i> | Mammal |
| 15 | Mole Salamander | <i>Ambystoma talpoideum</i> | Amphibian |
| 15 | Gorgone Checkerspot | <i>Chlosyne gorgone</i> | Insect |
| 15 | Monarch | <i>Danaus plexippus</i> | Insect |
| 15 | Lake Chubsucker | <i>Erimyzon sucetta</i> | Fish |
| 15 | Swamp Darter | <i>Etheostoma fusiforme</i> | Fish |
| 15 | Dwarf Salamander | <i>Eurycea quadridigitata</i> | Amphibian |
| 15 | Bird-voiced Treefrog | <i>Hyla avivoca</i> | Amphibian |
| 15 | Glossy Swampsnake | <i>Liodytes rigida</i> | Reptile |
| 15 | Shoal Chub | <i>Machyropsis hyostoma</i> | Fish |
| 15 | Long-tailed Weasel | <i>Mustela frenata</i> | Mammal |
| 15 | Slender Glass Lizard | <i>Ophisaurus attenuatus</i> | Reptile |
| 15 | Saddleback Darter | <i>Percina vigil</i> | Fish |
| 15 | American Golden-Plover | <i>Pluvialis dominica</i> | Bird |
| 15 | Broad-winged Skipper | <i>Poanes viator</i> | Insect |
| 15 | Southern Mapleleaf | <i>Quadrula apiculata</i> | Mussel |
| 15 | Western Harvest Mouse | <i>Reithrodontomys megalotis</i> | Mammal |
| 15 | Fawnsfoot | <i>Truncilla donaciformis</i> | Mussel |
| 15 | Rainbow | <i>Villosa iris</i> | Mussel |
| 13 | Twelve-spotted Tiger Beetle | <i>Cicindela duodecimguttata</i> | Insect |
| 11 | Winter Stonefly | <i>Allocapnia malverna</i> | Insect |
| 11 | Bronze Copper | <i>Lycaena hyllus</i> | Insect |

Habitats that occur in the Mississippi Alluvial Plain

Of the 37 terrestrial habitats in Arkansas, 14 occur in the Mississippi Alluvial Plain ecoregion (Table 3.29). Of 18 ecobasins in Arkansas, five occur in the Mississippi Alluvial Plain ecoregion (Figure 3.20). These associations are described in the Section 4. Terrestrial Habitats and Section 5. Aquatic Habitats.

Table 3.29. Terrestrial Habitats in the Mississippi Alluvial Plain.

Habitat Name

Crop Land

Cultivated Forest

Herbaceous Wetland

Lower Mississippi Alluvial Plain Grand Prairie

Lower Mississippi Flatwoods Woodland and Forest

Lower Mississippi River Bottomland Depression

Lower Mississippi River Dune, Pond, Woodland and Forest

Lower Mississippi River High Bottomland Forest

Lower Mississippi River Low Bottomland Forest

Lower Mississippi River Riparian Forest

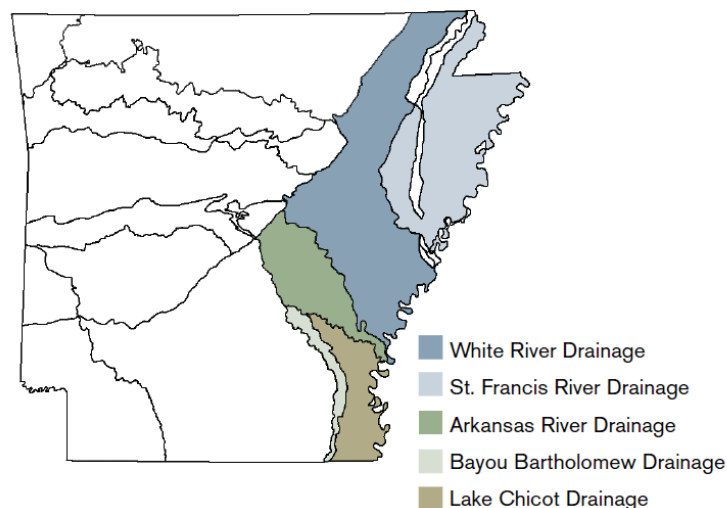
Mud Flats

Pasture Land

Ponds, Lakes, and Water Holes

Urban/Suburban

Figure 3.20. Ecobasin Distribution in the Mississippi Alluvial Plain.



Problems faced by Species of Greatest Conservation Need (SGCN)

Taxa association teams listed problems faced by SGCN individually in the Species Reports, pages 44-1113. A summary of the problems faced by SGCN in the Mississippi Alluvial Plain is presented below. Each problem has a score which is a sum of all Species Priority Scores associated with species for which this problem was assigned. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species associated with problems listed here.

Table 3.30. Problems faced by SGCN in the Mississippi Alluvial Plain ecoregion.

| Problem faced | Score |
|-----------------------------------|-------|
| Agricultural practices | 2157 |
| Dam | 1783 |
| Forestry activities | 1536 |
| Grazing/Browsing | 1063 |
| Channel alteration | 993 |
| Resource extraction | 941 |
| Channel maintenance | 895 |
| Urban development | 646 |
| Water diversion | 643 |
| Road construction | 629 |
| Confined animal operations | 549 |
| Fire suppression | 450 |
| Conversion of riparian forest | 434 |
| Parasites/pathogens | 286 |
| Exotic species | 280 |
| Recreation | 257 |
| Commercial/industrial development | 237 |
| Predation | 198 |
| Commercial harvest | 115 |
| Non-point source pollution | 105 |
| unknown | 86 |
| Management of/for certain species | 74 |
| Municipal/Industrial point source | 69 |
| Crossbreeding | 48 |
| Interspecific competition | 48 |
| Incidental take | 27 |
| Excessive groundwater withdrawal | 21 |

Conservation actions needed in the Mississippi Alluvial Plain

Descriptions of conservation actions linked to individual species on the list of SGCN are presented in the Species Reports, pages 45-1082. Below are categories of conservation actions recommended by the taxa association teams (Figure 3.21). An explanation of the categories follows in Table 3.31.

The score associated with the conservation action category is the sum of all priority scores associated with species for which a conservation action has been assigned, weighted by the importance of the conservation action category to the species. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species would be affected by actions within this conservation action category.

These scores may be used as guides to directing the apportionment of funding toward conservation actions benefiting habitats and species of greatest conservation need.

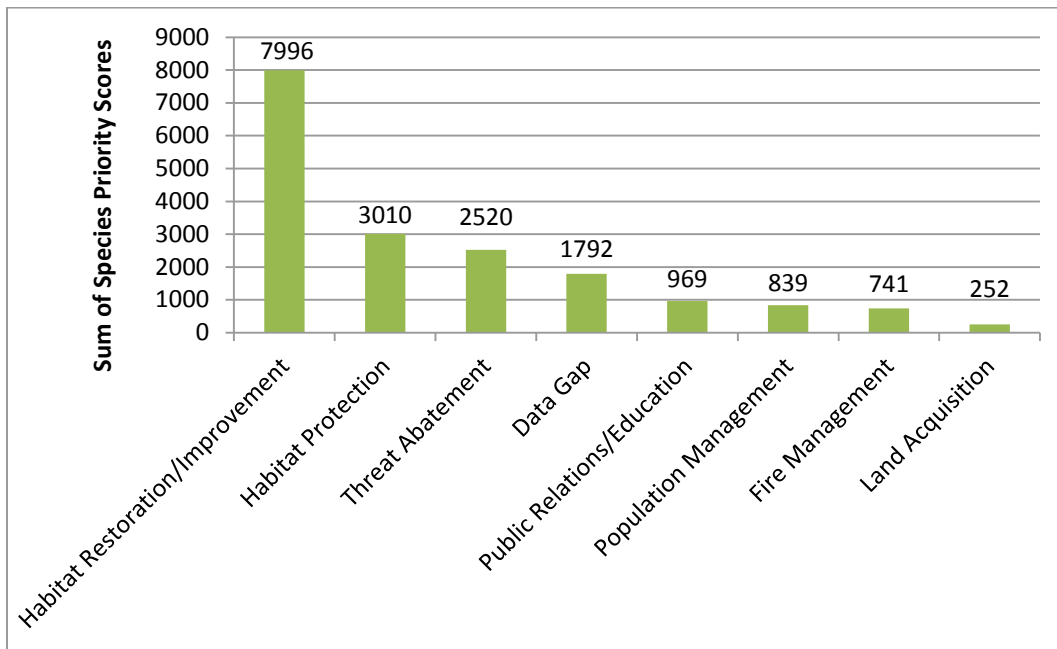


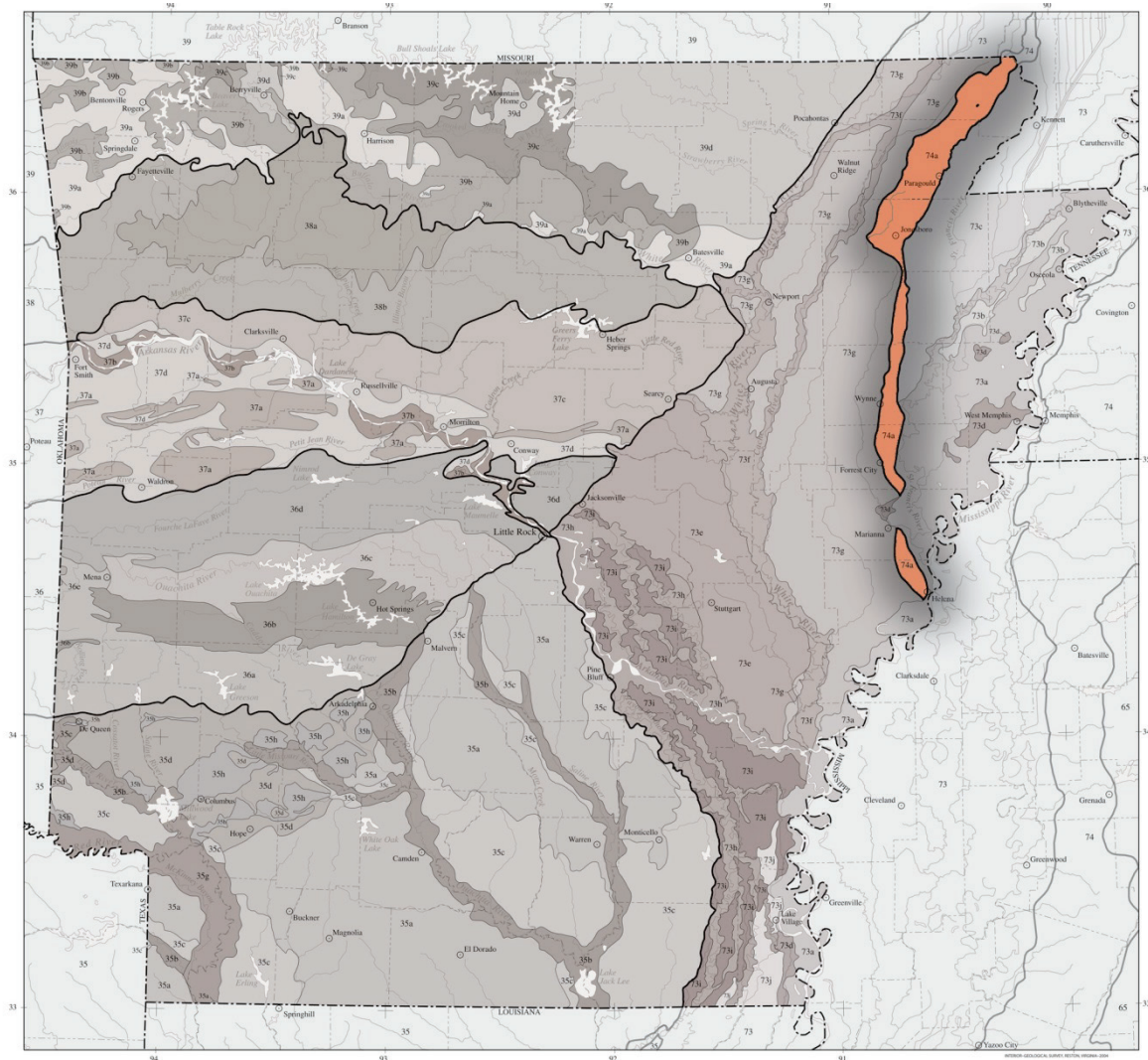
Figure 3.21. Conservation action categories recommended for the Mississippi Alluvial Plain.

Mississippi Valley Loess Plains (Ecoregion 74)

Ecoregion 74 stretches from the Ohio River in western Kentucky all the way to Louisiana. It is characteristically veneered with windblown silt deposits (loess) and underlain by erosion-prone, unconsolidated coastal plain sediments; loess is thicker than in the Southeastern Plains (65). Western areas, including Arkansas, have hills, ridges and bluffs, but further east in Mississippi and Tennessee, the topography becomes flatter. Overall, irregular plains are common.

Ecoregion 74 is lithologically and physiographically distinct from the Ouachita Mountains (36), Boston Mountains (38), Ozark Highlands (39), Interior Plateau (71) and Interior River Valleys and Hills (72).

Figure 3.22. Mississippi Valley Loess Plains ecoregion.





Mississippi Valley Loess Plains - Crowley's Ridge

Potential natural vegetation is primarily oak–hickory forest or oak–hickory–pine forest and is unlike the southern floodplain forests of the Mississippi Alluvial Plain (73). Streams tend to have gentler gradients and more silty substrates than in the Southeastern Plains (65).

Crowley's Ridge

74a. Crowley's Ridge, the only portion of the Bluff Hills ecoregion in Arkansas, is a disjunct series of loess-capped hills surrounded by the lower, flatter Mississippi Alluvial Plain (73). Crowley's Ridge, with elevations of up to 500 feet, is of sufficient height to have trapped wind-blown silt during the Pleistocene Epoch. It was formed by the aggregation of loess and the subsequent erosion by streams.

The loess is subject to vertical sloughing when wet. Spring-fed streams and seep areas occur on the lower slopes and in basal areas where Tertiary sands and gravels, that were never removed by the Mississippi River, are exposed.

Soils are generally well-drained; they are generally more loamy than those found in the surrounding Northern Pleistocene Valley Trains (73b) and St. Francis Lowlands (73c).

Wooded land and pastureland are common; only limited cropland is found in Ecoregion 74a. Post oak–blackjack oak forest, southern red oak–white oak forest and beech–maple forest occur. Undisturbed ravine vegetation can be rich in meso-phytes, such as beech and sugar maple. Oaks still dominate most of these meso-phytic communities. The forests of the Bluff Hills (74a) are usually classified as oak–beech. They are related to the beech–maple cove forests of the Appalachian Mountains; like the Appalachian cove forests, tulip poplar dominates early successional communities, at least in the southern ridge. In Arkansas, tulip poplar is native only to the Bluff Hills (74a). Shortleaf pine grows on the sandier soils of the northern ridge (adapted from Woods and others 2004).

Mississippi Valley Loess Plains: Species of Greatest Conservation Need (SGCN)

Species of greatest conservation need (SGCN) in the Mississippi Valley Loess Plains are presented by taxa association (Table 3.32). A higher priority score indicates a greater need for actions to conserve the species. A ranked list of all SGCN associated with the ecoregion is presented in Table 3.33.

Table 3.32. SGCN by taxa association.

| Taxa Association | Common Name | Scientific Name | Priority Score |
|-------------------------|----------------------------|--------------------------------|-----------------------|
| Amphibian | Spotted Dusky Salamander | <i>Desmognathus conanti</i> | 23 |
| | Crawfish Frog | <i>Lithobates areolatus</i> | 23 |
| | Eastern Spadefoot | <i>Scaphiopus holbrookii</i> | 19 |
| | Mole Salamander | <i>Ambystoma talpoideum</i> | 15 |
| Bird | Henslow's Sparrow | <i>Ammodramus henslowii</i> | 33 |
| | Rusty Blackbird | <i>Euphagus carolinus</i> | 29 |
| | Bewick's Wren | <i>Thryomanes bewickii</i> | 29 |
| | Common Nighthawk | <i>Chordeiles minor</i> | 24 |
| | Migrant Loggerhead Shrike | <i>Lanius ludovicianus</i> | 24 |
| | Yellow-crowned Night-Heron | <i>Nyctanassa violacea</i> | 24 |
| | American Woodcock | <i>Scolopax minor</i> | 24 |
| | Cerulean Warbler | <i>Setophaga cerulea</i> | 24 |
| | American Bittern | <i>Botaurus lentiginosus</i> | 23 |
| | Willow Flycatcher | <i>Empidonax traillii</i> | 23 |
| | Le Conte's Sparrow | <i>Ammodramus leconteii</i> | 21 |
| | Sedge Wren | <i>Cistothorus platensis</i> | 21 |
| | Sharp-shinned Hawk | <i>Accipiter striatus</i> | 19 |
| | Grasshopper Sparrow | <i>Ammodramus savannarum</i> | 19 |
| | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | 19 |
| | Dunlin | <i>Calidris alpina</i> | 19 |
| | Stilt Sandpiper | <i>Calidris himantopus</i> | 19 |
| | Chimney Swift | <i>Chaetura pelagica</i> | 19 |
| | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | 19 |
| | Northern Bobwhite | <i>Colinus virginianus</i> | 19 |
| | American Kestrel | <i>Falco sparverius</i> | 19 |
| | Purple Finch | <i>Haemorhous purpureus</i> | 19 |
| | Wood Thrush | <i>Hylocichla mustelina</i> | 19 |
| | Least Bittern | <i>Ixobrychus exilis</i> | 19 |
| | Short-billed Dowitcher | <i>Limnodromus griseus</i> | 19 |
| | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | 19 |
| | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | 19 |
| | Bell's Vireo | <i>Vireo bellii</i> | 19 |
| | Trumpeter Swan | <i>Cygnus buccinator</i> | 17 |

| | | | |
|---------|----------------------------|----------------------------------|----|
| | American Golden-Plover | <i>Pluvialis dominica</i> | 15 |
| Fish | Brown Bullhead | <i>Ameiurus nebulosus</i> | 19 |
| | Goldstripe Darter | <i>Etheostoma parvipinne</i> | 17 |
| Insect | Giant Stag Beetle | <i>Lucanus elaphus</i> | 25 |
| | Sandy Stream Tiger Beetle | <i>Cicindela macra</i> | 17 |
| | Cow Path Tiger Beetle | <i>Cicindela purpurea</i> | 15 |
| | Monarch | <i>Danaus plexippus</i> | 15 |
| | Bronze Copper | <i>Lycaena hyllus</i> | 11 |
| Mammal | Little Brown Bat | <i>Myotis lucifugus</i> | 33 |
| | Rafinesque's Big-Eared Bat | <i>Corynorhinus rafinesquii</i> | 29 |
| | Southeastern Bat | <i>Myotis austroriparius</i> | 24 |
| | Eastern Spotted Skunk | <i>Spilogale putorius</i> | 21 |
| | Eastern Harvest Mouse | <i>Reithrodontomys humulis</i> | 19 |
| | Southern Bog Lemming | <i>Synaptomys cooperi</i> | 19 |
| | American Badger | <i>Taxidea taxus</i> | 16 |
| | Long-tailed Weasel | <i>Mustela frenata</i> | 15 |
| | Western Harvest Mouse | <i>Reithrodontomys megalotis</i> | 15 |
| Reptile | Common Wormsnake | <i>Carphophis amoenus</i> | 19 |

Table 3.33. Species of greatest conservation need (SGCN) in the Mississippi Valley Loess Plains ranked by priority score. A higher priority score indicates a greater need for actions to conserve the species. Of the 377 SGCN, 51 occur in this ecoregion.

| Priority Score | Common Name | Scientific Name | Taxa Association |
|----------------|----------------------------|---------------------------------|------------------|
| 33 | Henslow's Sparrow | <i>Ammodramus henslowii</i> | Bird |
| 33 | Little Brown Bat | <i>Myotis lucifugus</i> | Mammal |
| 29 | Rafinesque's Big-Eared Bat | <i>Corynorhinus rafinesquii</i> | Mammal |
| 29 | Rusty Blackbird | <i>Euphagus carolinus</i> | Bird |
| 29 | Bewick's Wren | <i>Thryomanes bewickii</i> | Bird |
| 25 | Giant Stag Beetle | <i>Lucanus elaphus</i> | Insect |
| 24 | Common Nighthawk | <i>Chordeiles minor</i> | Bird |
| 24 | Migrant Loggerhead Shrike | <i>Lanius ludovicianus</i> | Bird |
| 24 | Southeastern Bat | <i>Myotis austroriparius</i> | Mammal |
| 24 | Yellow-crowned Night-Heron | <i>Nyctanassa violacea</i> | Bird |
| 24 | American Woodcock | <i>Scolopax minor</i> | Bird |
| 24 | Cerulean Warbler | <i>Setophaga cerulea</i> | Bird |
| 23 | American Bittern | <i>Botaurus lentiginosus</i> | Bird |
| 23 | Spotted Dusky Salamander | <i>Desmognathus conanti</i> | Amphibian |
| 23 | Willow Flycatcher | <i>Empidonax traillii</i> | Bird |
| 23 | Crawfish Frog | <i>Lithobates areolatus</i> | Amphibian |
| 21 | Le Conte's Sparrow | <i>Ammodramus leconteii</i> | Bird |
| 21 | Sedge Wren | <i>Cistothorus platensis</i> | Bird |
| 21 | Eastern Spotted Skunk | <i>Spilogale putorius</i> | Mammal |
| 19 | Sharp-shinned Hawk | <i>Accipiter striatus</i> | Bird |
| 19 | Brown Bullhead | <i>Ameiurus nebulosus</i> | Fish |
| 19 | Grasshopper Sparrow | <i>Ammodramus savannarum</i> | Bird |
| 19 | Eastern Whip-poor-will | <i>Antrostomus vociferus</i> | Bird |
| 19 | Dunlin | <i>Calidris alpina</i> | Bird |
| 19 | Stilt Sandpiper | <i>Calidris himantopus</i> | Bird |
| 19 | Common Wormsnake | <i>Carphophis amoenus</i> | Reptile |
| 19 | Chimney Swift | <i>Chaetura pelagica</i> | Bird |
| 19 | Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | Bird |
| 19 | Northern Bobwhite | <i>Colinus virginianus</i> | Bird |
| 19 | American Kestrel | <i>Falco sparverius</i> | Bird |
| 19 | Purple Finch | <i>Haemorhous purpureus</i> | Bird |
| 19 | Wood Thrush | <i>Hylocichla mustelina</i> | Bird |
| 19 | Least Bittern | <i>Ixobrychus exilis</i> | Bird |
| 19 | Short-billed Dowitcher | <i>Limnodromus griseus</i> | Bird |
| 19 | Swainson's Warbler | <i>Limnothlypis swainsonii</i> | Bird |
| 19 | Black-crowned Night-Heron | <i>Nycticorax nycticorax</i> | Bird |
| 19 | Eastern Harvest Mouse | <i>Reithrodontomys humulis</i> | Mammal |

| | | | |
|----|---------------------------|----------------------------------|-----------|
| 19 | Eastern Spadefoot | <i>Scaphiopus holbrookii</i> | Amphibian |
| 19 | Southern Bog Lemming | <i>Synaptomys cooperi</i> | Mammal |
| 19 | Bell's Vireo | <i>Vireo bellii</i> | Bird |
| 17 | Sandy Stream Tiger Beetle | <i>Cicindela macra</i> | Insect |
| 17 | Trumpeter Swan | <i>Cygnus buccinator</i> | Bird |
| 17 | Goldstripe Darter | <i>Etheostoma parvipinne</i> | Fish |
| 16 | American Badger | <i>Taxidea taxus</i> | Mammal |
| 15 | Mole Salamander | <i>Ambystoma talpoideum</i> | Amphibian |
| 15 | Cow Path Tiger Beetle | <i>Cicindela purpurea</i> | Insect |
| 15 | Monarch | <i>Danaus plexippus</i> | Insect |
| 15 | Long-tailed Weasel | <i>Mustela frenata</i> | Mammal |
| 15 | American Golden-Plover | <i>Pluvialis dominica</i> | Bird |
| 15 | Western Harvest Mouse | <i>Reithrodontomys megalotis</i> | Mammal |
| 11 | Bronze Copper | <i>Lycaena hyllus</i> | Insect |

Habitats that occur in the Mississippi Valley Loess Plains

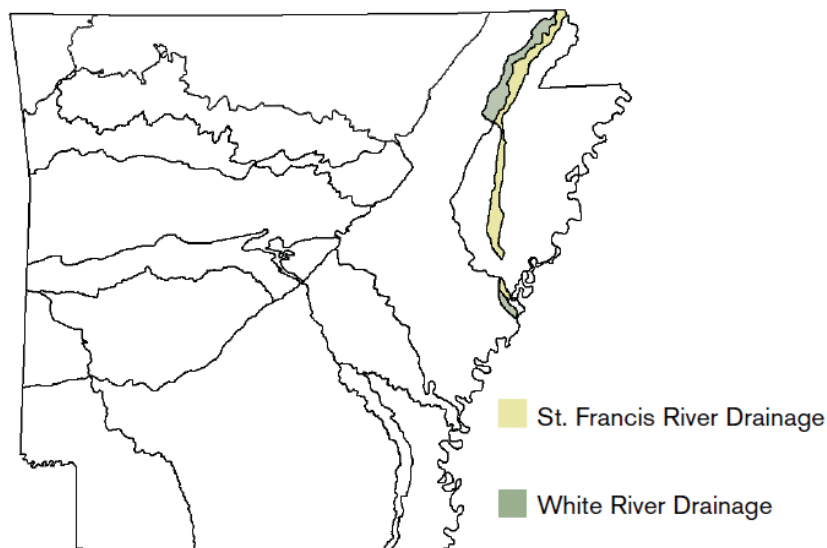
Of the 37 terrestrial habitats in Arkansas, 7 occur in the Mississippi Valley Loess Plains (Table 3.34). Of 18 ecobasins in Arkansas, three occur in the Mississippi Valley Loess Plains ecoregion (Figure 3.23). These associations are described in the Section 4. Terrestrial Habitats and Section 5. Aquatic Habitats.

Table 3.34. Terrestrial Habitats in the Mississippi River Loess Plains.

Habitat Name

Crop Land
Cultivated Forest
Crowley's Ridge Loess Slope Forest
Mud Flats
Pasture Land
Ponds, Lakes, and Water Holes
Urban/Suburban

Table 3.23. Ecobasin distribution in the Mississippi River Loess Plains.



Problems faced by Species of Greatest Conservation Need (SGCN)

Taxa association teams listed problems faced by SGCN individually in the Species Reports, pages 44-1113. A summary of the problems faced by SGCN in the Mississippi Valley Loess Plains is presented below. Each problem has a score which is a sum of all Species Priority Scores associated with species for which this problem was assigned. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species associated with problems listed here.

Table 3.35. Problems faced by SGCN in the Mississippi River Valley Loess Plains.

| Problem faced | Score |
|-----------------------------------|-------|
| Agricultural practices | 1049 |
| Forestry activities | 691 |
| Urban development | 334 |
| Conversion of riparian forest | 270 |
| Fire suppression | 257 |
| Parasites/pathogens | 161 |
| Exotic species | 109 |
| Water diversion | 104 |
| Commercial/industrial development | 103 |
| Dam | 97 |
| Predation | 97 |
| Recreation | 93 |
| Resource extraction | 84 |
| Non-point source pollution | 67 |
| Grazing/Browsing | 61 |
| Confined animal operations | 43 |
| Road construction | 43 |
| Municipal/Industrial point source | 38 |
| Interspecific competition | 29 |
| Excessive groundwater withdrawal | 21 |
| Channel alteration | 19 |
| Management of/for certain species | 17 |

Conservation actions needed in the Mississippi Valley Loess Plains

Descriptions of conservation actions linked to individual species on the list of SGCN are presented in the Species Reports, pages 44-1113. Below are categories of conservation actions recommended by the taxa association teams (Figure 3.24). An explanation of the categories follows in Table 3.36.

The score associated with the conservation action category is the sum of all priority scores associated with species for which a conservation action has been assigned, weighted by the importance of the conservation action category to the species. A higher score implies a higher quantity of SGCN and/or more greatly imperiled species would be affected by actions within this conservation action category.

These scores may be used as guides to directing the apportionment of funding toward conservation actions benefiting habitats and species of greatest conservation need.

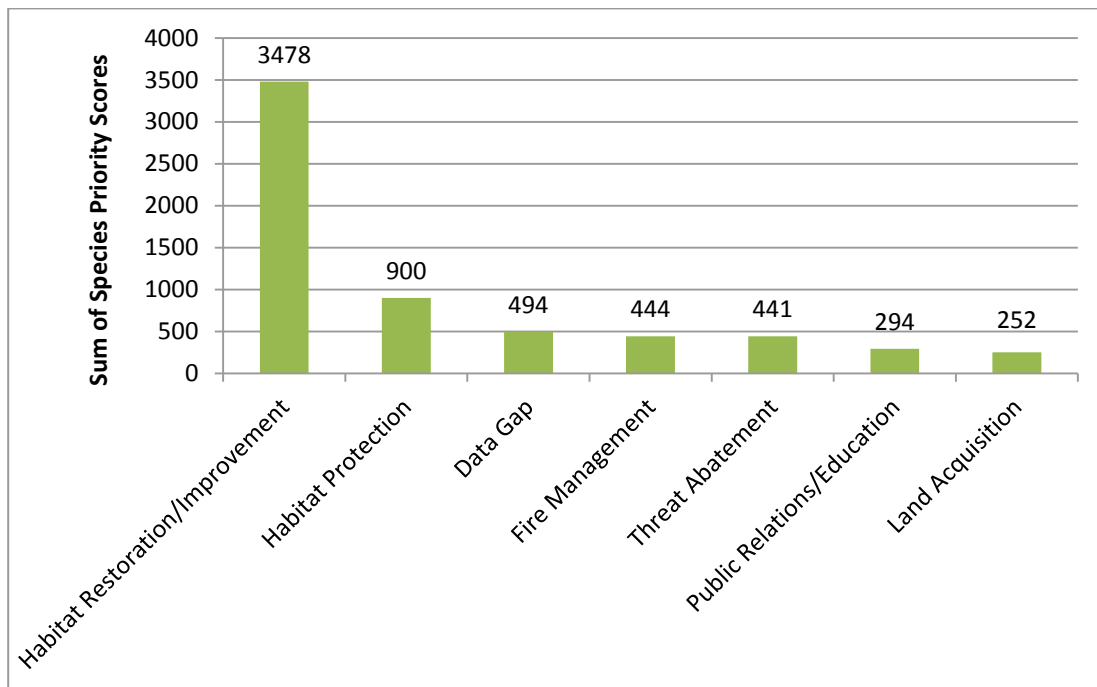


Figure 3.24. Conservation action categories recommended for the Mississippi Valley Loess Plains.