

Missouri Comprehensive Wildlife Strategy

What is a wildlife action plan?

Congress asked each state to develop a wildlife action plan, known technically as a comprehensive wildlife conservation strategy. These proactive plans examine the health of wildlife and prescribe actions to conserve wildlife and vital habitat before they become more rare and more costly to protect.

Missouri snapshot

Few other states are as enriched as Missouri by the intersection of plants and animals representing the vast prairies of the Great Plains, southwest deserts, southern swampy coastal plains, northern boreal forests and eastern Appalachians. Two big rivers, the Missouri River and the Mississippi River, shape the state and influence our landscape and wildlife.

Four ecological regions characterize our wildlife heritage. Many people are familiar with the Ozark Highlands – a region of forests and woodlands that still supports much native wildlife. The northern plains were formerly prairies and savannas dissected with wooded streams. Today, much of north Missouri is used for crop agriculture and cattle grazing. The western border of Missouri lies at the edge of the Great Plains; our best remaining prairie grasslands are in southwest Missouri. The extreme southeastern tip of Missouri is the Bootheel – formerly swamps and forests that produce wildlife characteristic of the South. The wildlife of each of these ecological regions is different; therefore the

management challenges are different.

Missouri's planning approach

Utilizing wildlife information gathered over the past 30 years, Missouri's Comprehensive Wildlife Strategy promotes management that benefits all wildlife, rather than targeting single species. The strategy identifies 33 Conservation

Opportunity Areas in which management strategies will conserve both wildlife populations and the natural systems on which they depend. For each Conservation Opportunity Area, a team of partners developed a common vision of issues and actions.



Prairie Chicken/MDC



Milkweed Survey/MDC

“Development of the Comprehensive Wildlife Strategy demonstrates our commitment to all wildlife. The Strategy highlights a renewed Department focus to conserve a broad array of wildlife and plants in recognition that all living things are part of a complex system.”

– John D. Hoskins, Director, Missouri Department of Conservation

The Department of Conservation, other public agencies, private conservation organizations and citizen conservationists can use the framework of Conservation

Opportunity Areas to focus their efforts for species of conservation concern and their habitats.

Primary challenges to conserving wildlife in Missouri

Invasive exotic plants and animals, development and urbanization, fire suppression, and diminishing water quality are all statewide threats.

Missouri's strategy identified primary threats facing wildlife in the Conservation Opportunity Areas.

Woodlands are one of Missouri's most threatened natural communities; not because the state is losing tree structure but because of a lack of ground fires. Though Missouri presently adds a million acres of trees every decade, today's woodlands differ in species composition and structure from those shaped by fire, and thus support different wildlife species. The Thousand Hills Woodland Conservation Opportunity Area is one location where we hope to increase prescribed fire management on public and private lands.



Paint Brush Prairie/MDC



Grotto salamander, William R. Elliott, MDC

“State government and private organizations can bring different capacities to bear to get things done. When you match the private sector with the public sector you can really magnify the amount of work you get done on the ground for all species.”
 –Roger Still, Executive Director, Audubon Missouri

| Wildlife | Total number of species | Species of conservation concern* | State endangered | Federally threatened/endangered |
|------------------------------------------------------|-------------------------|----------------------------------|------------------|---------------------------------|
| Plants | >2,000 | 635 | 10 | 10 |
| Mussels | 65 | 28 | 10 | 6 |
| Snails | 178 | 21 | 1 | 1 |
| Crayfish | 33 | 17 | 0 | 0 |
| Other crustaceans, flatworms, arachnids & millipedes | unknown | 31 | 0 | 0 |
| Insects | ~20,000 | 90 | 2 | 2 |
| Fish | 212 | 68 | 19 | 5 |
| Amphibians | 48 | 16 | 2 | 0 |
| Reptiles | 78 | 18 | 7 | 0 |
| Birds | **398 | 50 | 11 | 2 |
| Mammals | 72 | 25 | 6 | 4 |
| Totals | | 1003 | 68 | 30 |

*The reference list for plants, animals and natural communities of conservation concern is the Missouri Species and Communities of Conservation Concern Checklist. These plants and animals are the “species of greatest conservation need” in Missouri. Our Strategy is designed to conserve species, natural communities and landscapes.

**Includes 167 species known to breed in Missouri, as well as migratory birds.

Wildlife highlights

| Highlight habitats | Wildlife | Issues | Actions |
|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Prairie: Golden Grasslands Conservation Opportunity Area Ownership: Mix of public/private | <ul style="list-style-type: none"> • Prairie mole cricket • Grassland Crayfish • Northern crawfish frog • Bullsnake • Greater prairie-chicken • Upland sandpiper • Prairie vole | <ul style="list-style-type: none"> • Habitat Fragmentation • Invasive plants | <p>Golden Prairie Grassland Connectivity Initiative: Build connectivity for grassland wildlife by promoting conservation actions on 5,000 acres of private land and the existing conservation network.</p> <p>Control invasive plants and animals (e.g. sericea lespedeza).</p> |
| Glade/Woodland Complex: Roaring River Conservation Opportunity Area Ownership: Mix of public/private | <ul style="list-style-type: none"> • Eastern collared lizard • Flat-headed Snake • Greater roadrunner • Painted bunting | <ul style="list-style-type: none"> • Altered natural fire cycles • Invasion of red cedars | <p>Roaring River Glade and Woodland Restoration Initiative: Use prescribed burning and cedar tree removal as tools to improve 2,500 acres of glades and woodlands.</p> |
| Cave: Tumbling Creek Cave Ecosystem Conservation Opportunity Area Ownership: Mix of public/private | <ul style="list-style-type: none"> • Ozark cave amphipod • Causeyella cave millipede • Tumbling Creek cavesnail • Grotto salamander | <ul style="list-style-type: none"> • Groundwater pollution and sedimentation | <p>Tumbling Creek Cave Ecosystem Groundwater Protection Initiative: Reduce sedimentation and pollution in the Tumbling Creek groundwater system by implementing erosion control efforts, protecting karst features and improving sewage treatment methods.</p> |

Recommended actions to conserve Missouri's wildlife



Prairie burn/MDC

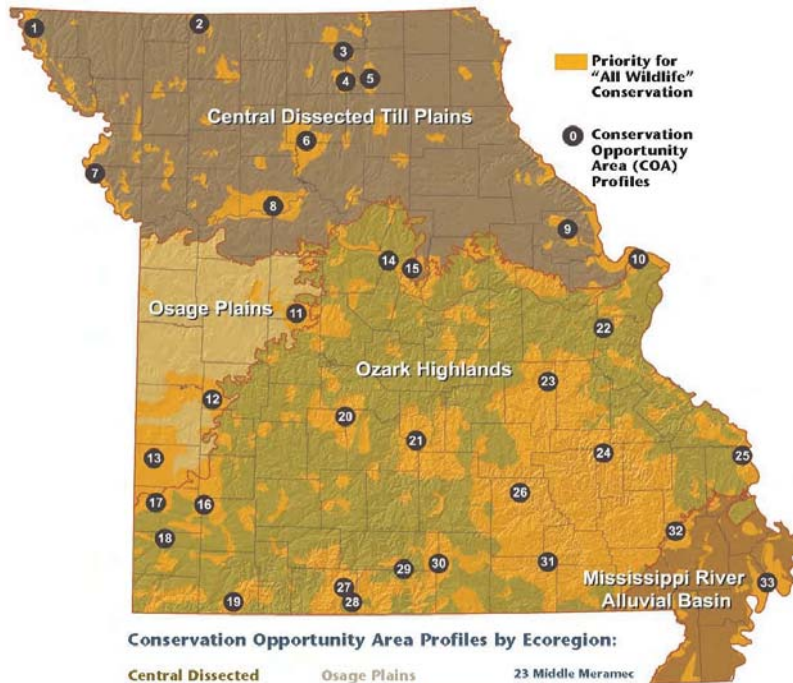


Pawnee Nursery Planting/MDC

Working together for Missouri's wildlife

The Missouri Department of Conservation worked with selected conservation partners to develop criteria for evaluating and identifying priority conservation opportunities. Then, a broad coalition of conservation partners participated in

Conservation Opportunity in Missouri



Conservation Opportunity Area Profiles by Ecoregion:

| | | |
|------------------------------------------|--------------------------------|-----------------------------------------|
| Central Dissected Till Plains | Osage Plains | Mississippi River Alluvial Basin |
| 1 Loess Hills | 11 Cole Camp/Hi Lonesome | 23 Middle Muramec |
| 2 Grand River Grasslands | 12 Marmaton/Wah'Kon-tah | 24 St. Francois Knobs |
| 3 Union Ridge | 13 Western Cherokee Grasslands | 25 Cape Hills |
| 4 Mystic Plains | | 26 Current River Hills |
| 5 Thousand Hills Woodland | Ozark Highlands | 27 White River Glades and Woodlands |
| 6 Lower Grand River | 14 Manitou Bluffs | 28 Tumbling Creek Cave Ecosystem |
| 7 Iatan/Weston Missouri River Corridor | 15 Bonne Femme Karst | 29 Bryant Creek |
| 8 Wakanda Bottoms | 16 Golden Grasslands | 30 North Fork |
| 9 Cuiava River Hills | 17 Spring River | 31 Eleven Point Hills |
| 10 Missouri/Mississippi River Confluence | 18 Shoal Creek | |
| | 19 Roaring River | |
| | 20 Niangua Basin | |
| | 21 Upper Gasconade River Hills | |
| | 22 LaBarque Creek Watershed | |

Missouri Department of Conservation

a Conservation Landscapes Meeting to identify and select Conservation Opportunity Areas. Participants from many agencies and organizations volunteered to be team leaders for Conservation Opportunity Areas, hosting the first stakeholder meetings and collecting information needed to profile each area. Other participating partners identified the Conservation Opportunity Area meetings to which they would like to be invited. This was an effective way to build the initial stakeholder teams. As team leaders planned their meetings, they were challenged to invite additional stakeholders, especially local individuals and communities that were not present at the statewide meeting.

During the meeting process, the Missouri Department of Conservation provided access to spatial data layers and facilitators, provided guidance on how to conduct the meetings, and identified specific information needed for area profiles. The Department facilitated 37 stakeholder meetings across the state.

The Department took the results of the stakeholder meetings and prepared draft Conservation Opportunity Area profiles, which participants could review and comment on. The final profiles are collected in the publication, *Conserving All Wildlife in Missouri: A Directory of Conservation Opportunity*.

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