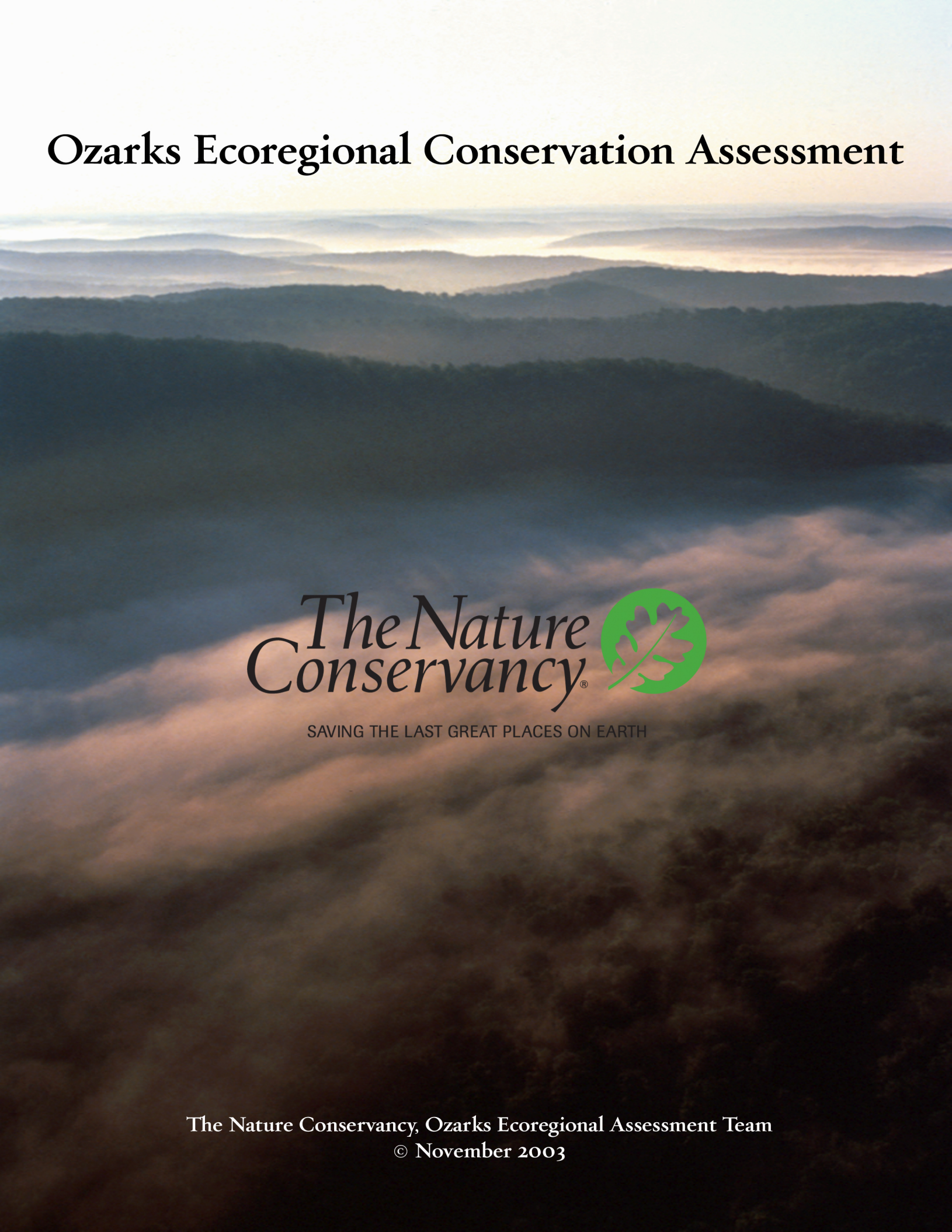
Ozarks Ecoregional Conservation Assessment



The Nature Conservancy®

SAVING THE LAST GREAT PLACES ON EARTH

The Nature Conservancy, Ozarks Ecoregional Assessment Team

Ozarks Ecoregional Assessment Team Members

Doug Ladd
The Nature Conservancy
2800 South Brentwood
St. Louis, MO 63144

Tom Foti
Arkansas Natural Heritage Commission
1500 Tower Building
323 Center Street
Little Rock, AR 72201

Tim Nigh
Missouri Department of Conservation
P.O. Box 180
Jefferson City, MO 65102

Mary Kay Solecki
Illinois Nature Preserves Commission
1 North Street
Sidney, IL 61877

Douglas Zollner
The Nature Conservancy
2424 Spruce Street
Boulder, CO 80302

Blane Heumann
The Nature Conservancy
P.O. Box 960
Van Buren, MO 63965

Shannon Horn
The Nature Conservancy
301 SW Adams Suite 1007
Peoria, IL 61602

Scott Simon
The Nature Conservancy
601 North University
Little Rock, AR 72205

Chris Wilson
The Nature Conservancy
2727 East 21st Street Suite 102
Tulsa, OK 74114

Production Coordinator:
Tihisia Boshart-Masis
The Nature Conservancy
2800 South Brentwood
St. Louis, MO 63144

Suggested citation:
The Nature Conservancy, Ozarks Ecoregional Assessment Team. 2003. Ozarks Ecoregional Conservation Assessment. Minneapolis, MN: The Nature Conservancy Midwestern Resource Office. 48 pp. + 5 appendices.

The Mission of The Nature Conservancy
is to preserve the plants, animals,
and natural communities
that represent the diversity of life on earth
by protecting the lands and waters they need to survive

Cover photo by Frank Oberle

Ozarks Ecoregional Conservation Assessment

Table of Contents

List of Figures

List of Tables

Appendices

Appendix 1: Ecoregional Target Data
- A. Species Targets
- B. Natural Community Targets
- C. Extirpated Species Targets

Appendix 2: Patterns of Natural Community Type by Subsection

Appendix 3: Target Capture Data
- A. Primary Species Capture
- B. Secondary Species Habitat and Range Information
- C. Small Patch/Large Patch Community Capture
- D. Karst Community Capture
- E. Aquatic Community Capture
- F. Matrix Community Capture

Appendix 4. Portfolio Site Characterizations (targets by site)
- A. Aquatic Sites
- B. Terrestrial Landscape Areas
- C. Small Scale Terrestrial Sites
- D. Karst Areas

Appendix 5. Target Occurrence Data (sites by target)
- A. Terrestrial Community Targets
- B. Karst Community Targets
- C. Aquatic Community Targets
- D. Species Targets

1. Executive Summary

An assessment was conducted for the Ozarks ecoregion to determine the spatial configuration that would most efficiently conserve viable examples of all globally significant biodiversity features. This assessment identified the globally significant species, natural communities, and ecological systems in the ecoregion, established viability criteria for occurrences of these features and developed representation and selection criteria for sustainable conservation of these features.

The Ozarks ecoregion encompasses nearly 34 million acres in parts of Missouri, Arkansas, Oklahoma, Illinois and a small corner of Kansas. Along with the Ouachita region to the south, the Ozarks form the only significant highland region in mid-continental North America. Parts of this region have been continually exposed for at least 225 million years. Because of high habitat diversity and antiquity of the landscape, Ozark biota are characterized by an unusually high level of species disjunctions and endemism, with more than 160 endemic species documented from the ecoregion.

Starting in 1998, a multi-organizational core team, including representation from each of the four states with meaningful area within the Ozarks, began to develop this assessment. The decision was made at the start of the process to involve representatives from partner organizations as part of the core team. The core team worked with a large number of organizations and individuals at all stages of the assessment project. An initial task of the assessment was to derive a list of the ecological targets — species, natural communities, and ecological systems of global conservation significance. Once the ecological targets were determined, each target was analyzed for various conservation-relevant attributes, such as pattern of occurrence.

Conservation goals for target capture were developed to address issues of necessary redundancy and representational stratification. Natural community and ecological system targets were stratified across a series of subsectional hierarchies established for each target class: terrestrial, aquatic, and karst. The assessment also developed viability criteria for each target type, including a preliminary threats analysis, and analyzed target occurrences in the ecoregion for viability, ensuring that the most viable occurrences were identified in the selection process.

These data were synthesized into a spatial assessment with supporting data that provides an explicit rendering of the most significant areas of the Ozarks from a biodiversity conservation perspective. The resulting portfolio encompasses 179 total sites, including 31 landscape-scale terrestrial areas, 43 small scale terrestrial sites, 44 aquatic sites, and 61 karst areas. The terrestrial and karst sites encompass a total of 5.7 million acres, or about 16.5% of the total area of the Ozarks. Aquatic priority sites include 3,179 stream miles and their accompanying watersheds; this represents about 19% of the total stream reaches within the Ozarks. These data also demonstrate the critical importance of Ozark sites, such as the Buffalo River in Arkansas and the Current River in Missouri, which between them contain the world's best known populations of 34 aquatic species of global conservation significance.

A preliminary review of site-by site threats was conducted to determine priority multi-site threats, and the primary sources of these threats across the ecoregion. Taken with the spatial information and supporting data generated by this assessment, the resulting product allows rapid evaluation of the most biologically significant areas within the ecoregion, establishes a goal for long term conservation, provides the foundation for developing and implementing conservation strategies at both the regional and local scales, and documents the disproportionate global significance of Ozark biodiversity relative to the area of the ecoregion within North America.

2. Introduction

The mission of The Nature Conservancy
is to preserve the plants, animals, and natural communities
that represent the diversity of life on earth
by protecting the lands and waters they need to survive

To efficiently accomplish this mission and ensure that conservation resources are effectively deployed for sustainable conservation of priority targets, The Nature Conservancy has committed to plan and implement conservation at an ecoregional scale (TNC 1996). An ecoregion can be broadly defined as an area where a commonality of physical, biotic and pre-historic factors, and natural process regimes create a region of biological cohesiveness.

Ecoregions typically occur on scales of thousands of square miles (millions of hectares) or more. Within the United States, there are eighty ecoregions, and within each of these, as well as for all global ecoregions, the Conservancy's goal is to ensure the "long term survival of all viable native species and community types through the design and conservation of portfolios of sites within ecoregions" (Groves et al. 2000).

An ecoregional assessment thus serves as a conservation blueprint, identifying those elements of a region's biological features that are of conservation significance from a biodiversity perspective, and providing spatial information about where within the ecoregion these conservation targets are best represented in sustainable arrays. An ecoregional assessment answers the questions of what is important from a perspective of global biodiversity conservation, and what is the least area of the landscape that must be the subject of conservation attention to ensure sustainable conservation of this biodiversity.

Although the unique cultural, historical, biological, and physical attributes of each ecoregion require different approaches to assessment and planning, all ecoregional assessments have a common set of key components as enumerated below.

Ozarks ecoregional assessment key planning steps and products:

1. Determine conservation targets [derive an enumeration of the species, natural communities and ecological systems of conservation concern within the ecoregion].
2. Set conservation goals [determine how many and what spatial distribution of targets is necessary to sustain all the elements of ecoregional biodiversity through a minimum of 100 years].
3. Determine target occurrences [develop integrated spatial data set with locality information for conservation targets within the ecoregion].
4. Assess viability [determine criteria for sustainability of targets, and assess all target occurrences for potential viability].
5. Assemble portfolio [develop a spatial data set of most efficient representation to meet conservation goals for all targets].
6. Assess completeness [test target capture and efficiency, and revise portfolio accordingly in a multistep iterative process].

7. Compile synoptic threat assessment [determine potential stresses and sources likely to degrade target occurrences within the ecoregion and the feasibility of threat abatement].
8. Develop an action plan and implementation strategies [determine when and where to initiate conservation activity, and what multi-site and cross boundary strategies and threat abatement strategies have the highest potential leverage and impact].

Each of these steps are discussed in further detail in the following sections. The resultant product provides a template of what is fundamentally irreplaceable from a global conservation perspective within the ecoregion, and the best spatial representation of a conservation design to ensure sustainability of these elements. Just as importantly, the assessment also identifies those areas of the landscape where, from a global biodiversity perspective, it would be less justifiable or efficient to direct conservation resources.

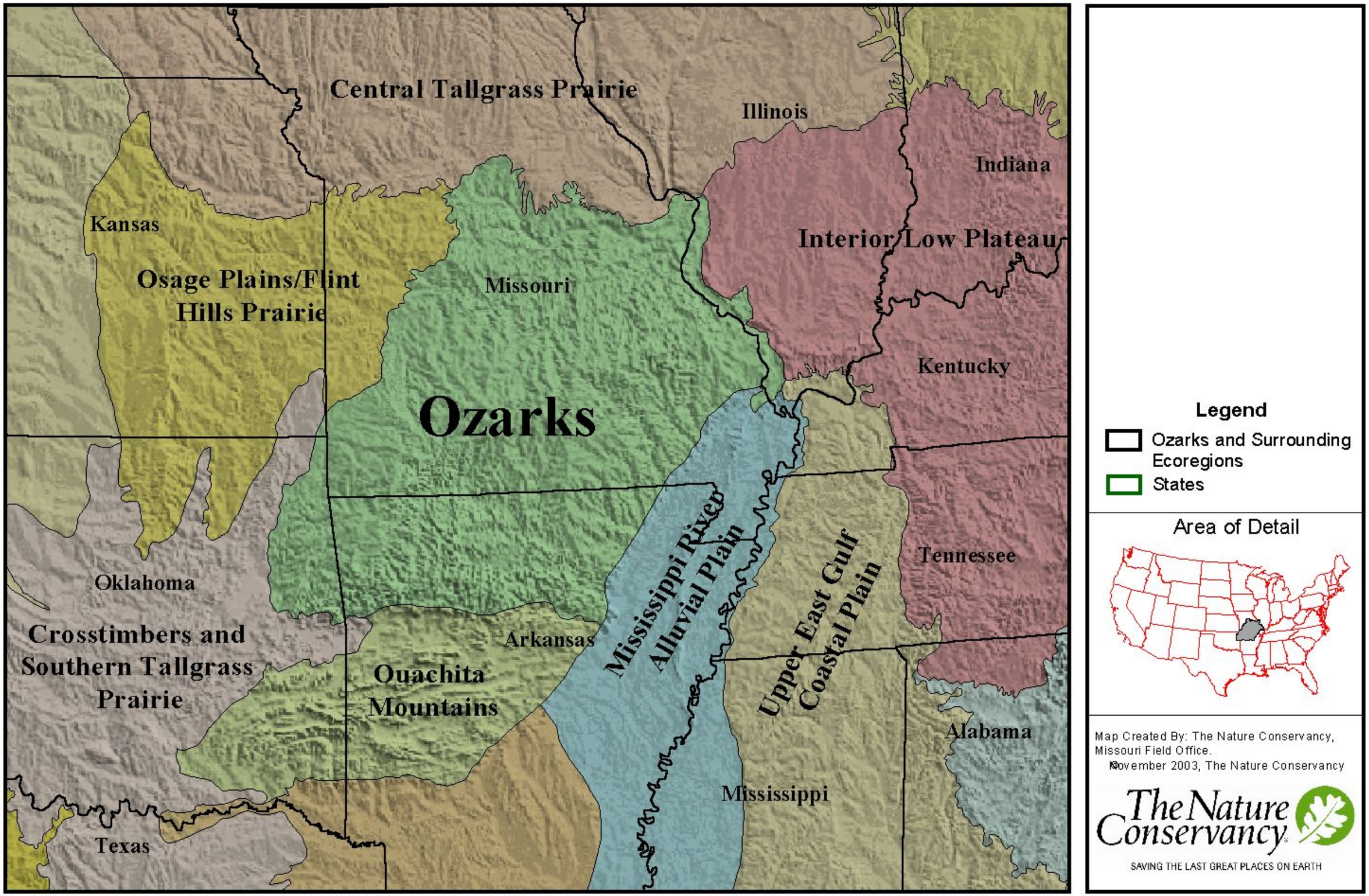
Thus, an ecoregional assessment enumerates what is biologically important in an ecoregion, and where this biodiversity can be most efficiently and sustainably conserved. It does not provide explicit information about site-based conservation attributes, which are the purview of site conservation planning and implementation.

Activities related to Ozarks ecoregional conservation began with informal discussion and collaborations among the Arkansas and Missouri operating units of the Conservancy in the early 1990's, using available Natural Heritage Program information to identify biologically significant areas of the Ozarks, such as the Lower Ozark project area (TNC 1993). Valuable additional data related to physical, biological, and cultural aspects of the ecoregion were developed through the Ozark-Ouachita Highlands Assessment (USDA Forest Service 1999). This analysis resulted in an integrated assessment of the Interior Highlands spearheaded by the USDA Forest Service, with a broad collaboration of outside experts, organizations, and agencies, including active participation from three Nature Conservancy programs in the assessment region (Arkansas, Missouri, Oklahoma).

Formal ecoregional assessment activity commenced in 1998 with a core team consisting of both Conservancy staff and staff from key partner agencies. The core team, with assistance from numerous specialists, also served as the technical and design team for the assessment. The assessment team was indirectly overseen by an informal steering committee consisting of the Arkansas and Missouri state directors. Ecoregional data assembly and assessments were conducted from 1998 through 2001, and the iterative assembly and testing of the portfolio resulting in the final portfolio design was completed in 2002. Implementation plan development commenced in 2002. In conceptual approach, planning steps and sequences generally followed that enumerated by Ostlie and Haferman (1999).

Throughout the process, the assessment benefited from a broad collaborative input by a diverse group of experts, many of whom are acknowledged elsewhere in this report. The strength of this assessment is a direct result of additional information and data that was freely shared with the core team, resulting in a far better set of data on which to base conservation decisions than would otherwise have been available.

Figure 1. Ozarks Ecoregion



3. Ozarks Ecoregional Overview

The Ozark region has long been recognized as a geologically, physiographically, ecologically, and culturally distinct area of North America. In conjunction with the Ouachita region to the south, the Ozarks comprise the only highland in midcontinental North America, and the only significant topographic relief between the Appalachians and the Rocky mountains.

This region is characterized by a diversity of terrestrial, aquatic, and karst habitats, ranging from glades and tallgrass prairies to both coniferous and deciduous woodlands and cypress swamps, as well as fens, sinkholes, sloughs, and a suite of clear-flowing streams and rivers fed by an abundance of springs of all magnitudes.

Encompassing 13.7 million hectares (34.3 million acres), the Ozarks ecoregion includes portions of five states, with the majority of the region occurring within Missouri (67%) and Arkansas (24%) and smaller portions in Oklahoma (17%), Illinois (2%) and Kansas (0.1%). The Ozarks span a maximum of 270 miles (450 km) of north/south extent, and a maximum east/west extent of 340 miles (540 km). As shown in Figure 1, six other ecoregions, ranging in character from tallgrass prairie landscapes to humid forested wetland systems, border the Ozarks ecoregion.

High levels of topographic, geologic, edaphic and hydrologic diversity exist throughout the Ozarks, resulting in a wide range of habitat types. This is a region of rugged uplands with copious exposed rocks and variable soil depths. The landscape in various terrestrial subsections of the Ozarks ranges from extensive areas of karst terrain on irregular plains, to highly dissected regions with steep hills and deeply entrenched valleys, as well as limited areas of ancient low mountains with elevations up to 925 meters (3000 feet). There are also smaller, linear areas of alluvial terrain and major riparian features.

Bedrock geology of the ecoregion includes exposures of Precambrian igneous rocks in the eastern part of the Missouri Ozarks surrounded by alternating zones of Paleozoic sandstone and carbonate sedimentary rocks. Structurally, the Ozarks consist of a dome that has been slowly uplifted and eroded, resulting in a distinct landscape pattern. The oldest igneous rocks are exposed at the center of the uplift in southeast Missouri and surrounded by regions of Cambrian- and Ordovician-aged shallow water carbonates and beach sandstone strata. Further from the center are areas of younger Mississippian sedimentary rocks, including limestones and limited areas of riparian-derived freshwater sandstones (Nigh and Schroeder 2002).

Dominant soils consist of Alfisols and Ultisols. The Alfisols, predominant in the less dissected terrestrial subsections, are thin loams with a clay component in the subsurface, and are generally thought to have formed under timber and some prairie vegetation types. Ultisols, predominant in the more rugged and dissected terrestrial subsections of the Ozarks, can in many ways be considered a more leached, weathered version of alfisols, with a much lower component of basic cations. Average precipitation in the Ozarks ranges from 39-52 inches (99-132 cm), with mean annual temperatures ranging from 54-63 °F (12-17 °Celcius). The average frost free growing season ranges from 180-208 days.

A major contributing factor to the region's extreme biological diversity is that parts of the Ozarks have been continuously available for plant and animal life since the late Paleozoic some

230 million years ago, constituting perhaps the oldest continuously exposed land mass in North America, and one of the oldest on earth. Plants have presumably inhabited these rugged uplands since the origin of the modern angiosperms some 100 million years ago. Because of their central location within the continent, the Ozarks have on multiple occasions served as a refugium for organisms buffeted by climatic shifts associated with glacial and geologic events. The high levels of microhabitat diversity, influx of biota from divergent regions, and extreme antiquity of the landscape have combined to both sustain relictual populations and allow the development of new species, making the Ozarks a center of endemism in North America.

None of the four major continental glaciation events of the past two million years extended into the Ozarks. At the maximal extent of Wisconsin glaciation some 15,000 years ago, the climatic effects of a massive ice sheet extending into what is now Iowa resulted in a boreal climate through much of midcontinental North America. At that time, the vegetation of the Ozarks was a combination of spruce-fir forests and jack pine parklands (Delcourt et al. 1986).

Coincident with or preceding the glacial retreat, there has been a more or less continuous inhabitancy of the region by human cultures. These people had to secure all the necessities of survival from the local environment on a year round basis without mercantile exchange from remote areas. The fact that such cultures not merely survived, but developed art, mythology, ceremony, religion, and other accoutrements of highly developed societies, testifies to their superb abilities to manage and interact with the Ozark environment.

One of the most pervasive and effective tools available to early human populations in the region was wildland fire. An irrefutable body of evidence exists that the biological landscape of the Ozarks reflects the effects of millennia of frequent, low intensity, dormant season fires set by humans (e.g. Ladd 1991, Guyette & Cutter 1991). At the initiation of European settlement of the region, predominate Native Americans in the Ozarks were the Osage. Parts of the eastern and southeastern Ozarks were home to the Quapaw.

Thus, the pre-Eurosettlement vegetation in the Ozarks had been influenced since the end of the glacial period by an ongoing aboriginal fire regime. This vegetation consisted of a mosaic of matrix communities dominated by open woodland types, with various combinations of oaks and shortleaf pine as the principle overstory dominants in the uplands. Although Ozark woodlands are significantly different from the extensive deciduous woodlands extending eastward to the Atlantic coast, the Ozarks represent the westernmost extension of this eastern deciduous woodland formation that dominated much of eastern North America prior to European settlement. Extensive areas of tallgrass prairie occurred in the Ozarks, especially in the western terrestrial subsections (Schroeder 1981). Embedded within these matrix vegetation types was a diverse assemblage of small and large patch natural communities, including various types of fens, forests, wetlands, fluvial features and both carbonate and siliceous glades. The Ozarks ecoregion contains the largest extent of glade communities in North America (Nelson and Ladd 1980).

As a direct result of all of these factors, the Ozarks support a diversity of natural communities and associated biota unlike anywhere else on earth. Many plants and animals in the Ozarks are relict populations of organisms whose modern ranges are otherwise remote from the region. A

combination of habitat diversity, landscape position, and glacial history has resulted in a large number of species with diverse biogeographic affinities attaining the limits of their ranges within the Ozarks. For example, an evaluation of the Lower Ozark region of southeastern Missouri and northeastern Arkansas (predominately in the Central Plateau and Current River Hills terrestrial subsections) revealed that an astounding 17% of the areas vascular flora attained a limit of their global range in the Ozarks (TNC 1993).

The Ozarks also constitute a center of endemism for temperate biota in divergent organismal groups including vascular plants, lichens, fish, mollusks, and crayfish. Although not attaining levels of endemism associated with certain tropical systems, at least 200 taxa of plants and animals are known to be endemic to the Ozarks and/or Ouachitas (Allen 1990), despite a lack of disciplined biological inventory through most of the region, especially among more cryptic organismal groups. For these reasons, the area has long been recognized by conservation practitioners for its biodiversity and conservation significance.

Although significantly impacted by anthropogenic activities associated with modern society and hosting a human population of more than three million people, large areas of the Ozarks remain in native vegetation cover. Timber, tourism, and agriculture are major economic factors in the region, with a rapidly increasing influx of retirees in recent years. Overall population trends are upward in the region. Average education and income levels throughout the Ozarks are generally lower than national averages, and 29 Ozark counties are classified as "persistent poverty" counties (USDA Forest Service 1999). Critical threats to biodiversity across the region include altered fire regimes, altered hydrological regimes, habitat conversion and associated exotic species invasion, habitat fragmentation, and non-point-source pollution.

The Ozarks ecoregion can be conceptually divided into different subunits to accommodate sub-ecoregional variability based on biophysical processes and biogeographic patterns of different functional groups of biota. Thus, as described below, the Ozarks are logically divisable into various subsectional classification systems depending on whether the focus is based on terrestrial, karst, or surface aquatic systems and biota. Each of these subsectional classification systems are vital as a basis for effective conservation planning.

Terrestrial Subsections

From a terrestrial perspective, Keys et al. (1995) divide the Ozarks into two sections, the Boston Mountains section forming the southern border of the ecoregion in Oklahoma and Arkansas, and the Ozark Highlands section comprising the majority of the Ozarks. These sections are further divided into subsections, based on regions typically of 2,000 square miles (5,000 square kilometers) or more that have similarities among geologic and edaphic substrates, landform and topography, local climate, natural process regime and presettlement vegetation patterns. As shown in Figure 2 and summarized in Table 1, there are 17 distinct terrestrial subsections in the Ozark Highlands, and two terrestrial subsections in the Boston Mountains. Detailed characterizations of these nineteen Ozark terrestrial subsections are provided in Nigh and Schroeder (2002) and Keys et al. (1995).

Figure 2. Ozarks Ecoregion Terrestrial Subsections

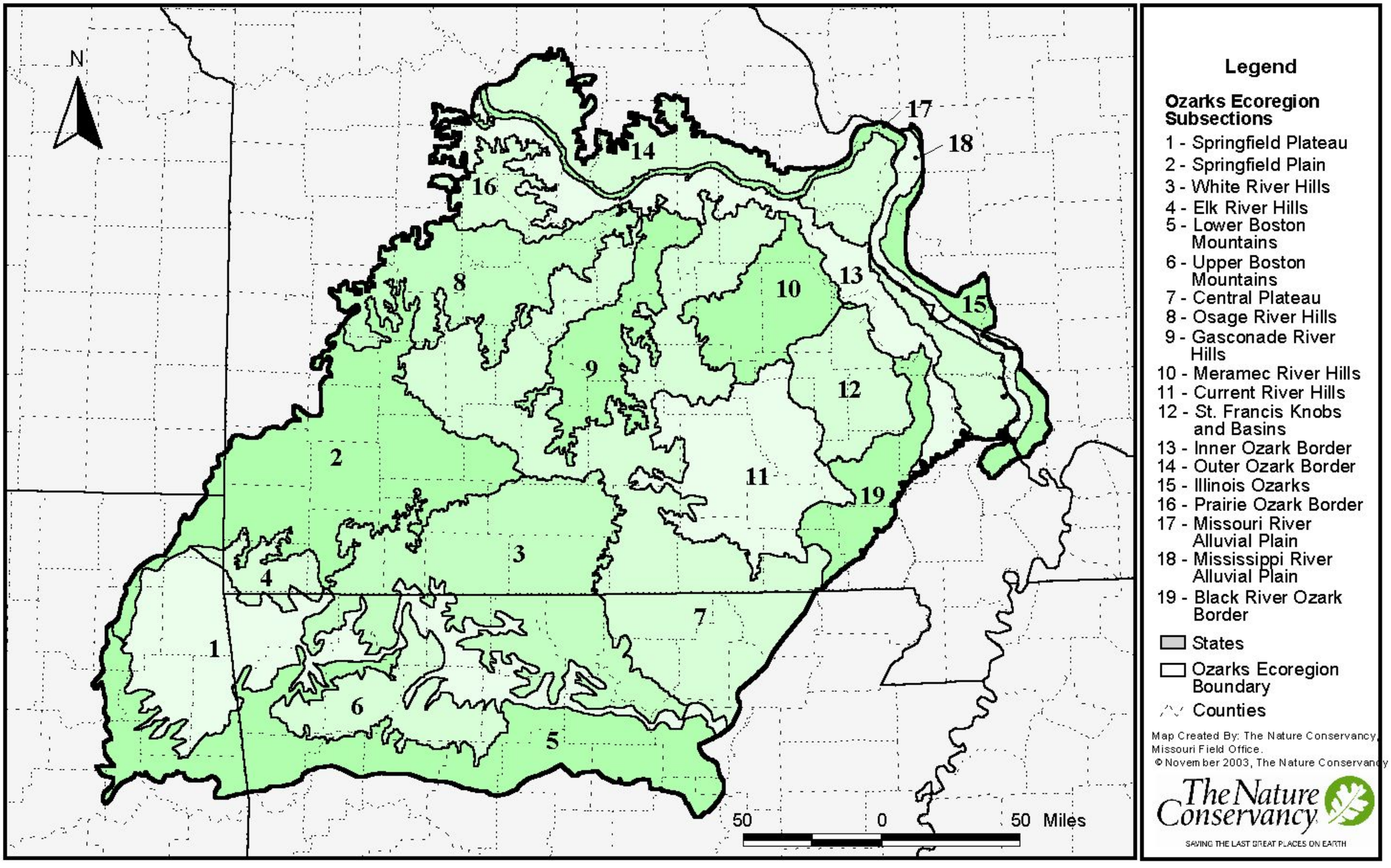


Table 1. Synopsis of Ozark Terrestrial Subsections

Subsections are listed in alphabetical order, preceded by their corresponding map numbers.

Subsection	Topography	Substrate	Characteristic Ecological System
19-Black River Ozark Border	Moderately dissected hills with locally steep rocky slopes and moderate local relief (up to 300 feet)	Bedrock is thick-bedded Ordovician dolomites and sandstones with abundant chert; soils are primarily cherty silt loams and clay pan soils with a loess component	Pine and pine-oak woodlands, with regions of mixed oak woodlands and Post Oak flatwoods on broad upland flats; scattered glades, fens, and sinkhole ponds
5-Lower Boston (= Boston Hills)	Moderately to highly dissected high hills with steep slopes and significant local relief (up to 1000 feet)	Pennsylvanian thick-bedded (Akota) sandstones, with local, abundant shale and chert; soils are generally shallow and rocky, consisting primarily of silt loams and sandy loams.	Large scale complex of pine, pine-oak, and mixed oak and oak hickory woodlands and acid soils, with frequent cliffs
6-Upper Boston (= Boston Mountains)	Highly dissected low mountains with high local relief and excessively steep slopes		Rugged landscape with complex of pine, pine-oak, and mixed oak and oak hickory woodlands grading into forests in more dissected terrain and ravines, with frequent cliffs, seeps, and small glade openings.
7-Central Plateau	Primarily an irregular, broad flat plain with minimal local relief and occasional steep slopes associated with major drainages	Characterized by Ordovician bedrock - primarily thick-bedded dolomites, with some significant sandstone exposures; soils are primarily deep, with a thin loess component, and fragipans are common	A complex intercalated mosaic of oak woodland, oak savanna, and tallgrass prairie
11-Current River Hills	Highly dissected landscape associated with the drainage basins of the Current, Eleven Point, and Black rivers, with moderate to high local relief	Primarily Ordovician and Cambrian dolomites, with limited Ordovician sandstone, and one area of precambrian igneous knobs; soils are copiously rocky, and primarily derived as weathering products from the base rock, with limited areas of fragipan	Diverse timbered mosaic, with open grassy woodlands on more gentle uplands, and denser woodlands and forests in heavily dissected regions - including pine woodland/forest complex, pine-oak, and acid oak woodlands and smaller areas of forest; mesophytic talus and bottomland woodlands in deeply dissected stream valleys; frequent dolomite glades, fens, large springs, bluffs, and sinkhole ponds

Subsection	Topography	Substrate	Characteristic Ecological System
4-Elk River Hills	Highly dissected drainage basin with abundant narrow ridges and ravines, steep slopes, and frequent large bluff exposures	Predominately cherty limestones of the Ordovician Burlington formation, with Ordovician dolomites in the deepest dissections; soils predominately derived from cherty limestones	Open oak woodland and extensive oak savanna with prominent and diverse grassy ground layer, and associated oak pine woodlands on xeric cherty ridges; small limestone glades, prairie openings, and frequent small springs
9-Gasconade River Hills	Highly dissected, topographically complex, steeply sloping landscape associated with the Gasconade River system	Ordovician aged dolomites and some similar aged sandstone dominate the lithology; soils are primarily residual cherty clay soils derived from weathering of dolomite bedrock	Extensive oak savannas and woodlands on sterile acidic upland soils, with pine-oak woodlands associated with sandstone influence
15-Illinois Ozarks	Dissected blufflands and associated alluvial features along the Mississippi River	Ordovician and Mississippian aged limestones and cherty limestones; also Pennsylvanian aged sandstone in central part; soils mostly derived from deep loess	Oak and oak-pine woodlands, with extensive limestone glade and bluff features; local occurrences of mesophytic woodlands and wetlands
13-Inner Ozark Border	Narrow region of moderately dissected plains and hills with localized highly dissected areas associated with major drainages	Primarily Ordovician cherty dolomites, with some Pennsylvanian sandstones and shales; soils are primarily residual weathering products with abundant clay and chert, with some areas of significant loess accumulation	Acid upland timber complex ranging from open oak savannas with a prominent prairie understory on broader flat uplands to dense forests in protected, highly dissected, narrow ravines; and small scattered glades
14-Outer Ozark Border	Narrow region of rugged hills, ravines, and bluffs bordering the Missouri and Mississippi rivers	Ordovician dolomites and sandstones in lower topographic positions, overtopped by Mississippian limestones; soils highly variable, some with a deep and prominent loess component	Oak woodlands in acidic upland soils, with more open oak savannas on the broader uplands and some oak and mesophytic forest in highly dissected areas; small glades
10-Meramec River Hills	Highly dissected, steeply sloping lands associated with Meramec River basin, with narrow ridges and valleys	Both Ordovician and Cambrian dolomite, as well as some expanses of Ordovician sandstone; soils are primarily clayey residuum with abundant chert, and produced as weathering products of dolomite	Oak woodlands with smaller areas of oak-pine woodland and some well developed forests in the deeper valleys and bottoms, with open oak savanna on the broader, sterile uplands

Subsection	Topography	Substrate	Characteristic Ecological System
18-Mississippi River Alluvial Plain	Quasi-stabilized, flat, alluvial plain associated with the Mississippi River channel	Bedrock is deeply buried except for small localized shale and limestone exposures; soils are all alluvial sediments, and mostly with high clay or silt components	Extensive open riparian woodlands with trees such as bur oak and kingnut hickory, with large riparian prairies, marshy sloughs, shrubby wetlands, and limited denser forest areas; seral communities less extensive than on the more dynamic and sediment-laden Missouri River channel
17-Missouri River Alluvial Plain	Flat, low, formerly highly dynamic alluvial plain associated with the Missouri River; formerly prone to frequent flooding, channel migration, and scouring	Bedrock well below surface, with soils comprised of glacial and post-glacial alluvium; soils are typically sandy along active channel runs, clayey in protected sloughs and backwaters, and silty on slightly elevated rises	Complex association of dynamically interphasing riparian communities, ranging from open sand and mud bars to marshy sloughs, shrub thickets and riparian and bottomland forests, typically dominated by seral tree species such as willow, cottonwood, elm, hackberry, and silver maple
8-Osage River Hills	Dissected hilly landscape associated with the Osage River system and its primary tributaries, with both broad uplands and narrow, highly dissected terrain	Thick-bedded, cherty Ordovician dolomites, with significant Ordovician sandstone exposures and limited amounts of limestone, shale, and Pennsylvanian sandstone; soils variable, but often deep and loamy or clayey, with abundant chert residuum	A complex mosaic of open oak woodland and savanna, with tallgrass prairie and limited areas of denser, more mesophytic woodlands in deeper valleys; dolomite glades and bluffs common along major stream dissections.
16-Prairie Ozark Border	Flat to gently undulating upland plain with occasional moderate dissection associated with small streams	Ordovician dolomite and Mississippian limestones, mostly mantled by generally deep soils with prominent clay and rock fragment components	Extensive rolling tallgrass prairies on acidic upland soils, with limited amounts of open oak savannas and oak woodlands in more dissected areas
2-Springfield Plain	Gently undulating plain with generally low relief	Extensive Mississippian aged Burlington Limestone, with abundant chert; soils are primarily cherty silt loams and loams, with a loess component; there are localized areas of clay fragipan soils.	Extensive tallgrass prairie areas, in the higher flat regions, with open savannas and oak woodlands, some on high-base substrates, in dissected terrain, and embedded small limestone glades; small phreatic features in stream valleys

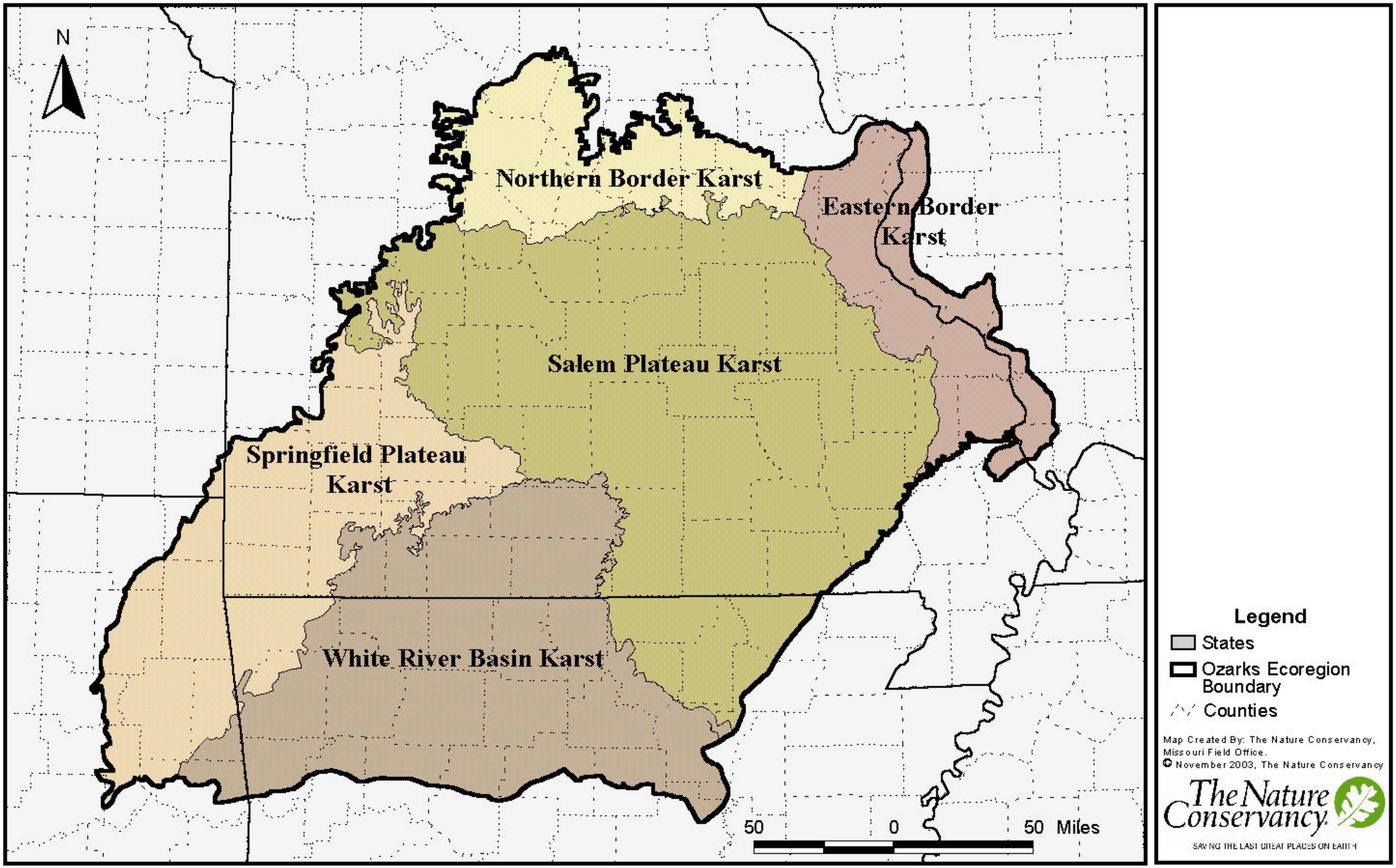
Subsection	Topography	Substrate	Characteristic Ecological System
1-Springfield Plateau	Moderately dissected landscape with localized ridges and steep slopes,	Extensive Ordovician aged Mississippian limestones with localized sandstone and abundant chert residuum	Open oak savanna and woodlands on acidic uplands, with significant tallgrass prairie inclusions
12-St. Francis Knobs and Basins	Distinctive, smoothly rounded knobs and broad intervening valleys, with some areas of rugged, highly dissected terrain and local relief ranging up to 1,000 feet	Ancient, erosionally exposed igneous knobs of complex rhyolites, granites, and associated rocks, with intervening regions of Cambrian dolomites and sandstones; soils on igneous sites are sterile, acidic, and extremely rocky, while soils on sedimentary bedrock are typically weathering products of silty clay loam types, with higher base availability	Oak and oak-pine woodlands and savannas with associated igneous talus slope, glade, and xeric woodland communities on steep-sided, ancient igneous knobs
3-White River Hills	Deeply dissected basin with extensive bedrock exposures and high relief, steep slopes	Dominated by thick-bedded, shaley and cherty Ordovician dolomites, with localized areas of other Ordovician dolomites and sandstones; high base clayey or loamy soils derived from dolomite, and some weathered, acidic soils on uplands.	1) Extensive dolomite glades and glade/high-base woodland complexes, with stranded mesophytic woodlands and stream features in bottomlands and acid deciduous woodlands on cherty ridges; 2) Pine oak, oak-pine, and acid deciduous woodland complexes on sandstone-derived substrates

Karst Subsections

Karst features are moderately developed across the ecoregion with greater development associated with Cambrian dolomites and Mississippian limestones and their areas of outcrop. Subterranean aquatic karst passages are typically better expressed than emergent cave passages. This is reflected in the regional karst fauna, with subsurface aquatic diversity being greater than subsurface terrestrial diversity — a total of 46 stygobite (obligate cave aquatic) species verses 31 troglobite (obligate cave terrestrial) species (Culver, et al. 2003). Endemic species are sometimes restricted to individual cave or spring systems or more commonly restricted to small karst areas or subsections.

Distributional patterns of karst fauna are related more to subsurface bedrock and aquifer patterns than to surface topography. As shown in Figure 3, five distinct karst subsections occur within the ecoregion. These karst subsections are not directly correlated with terrestrial subsections. Each karst subsection is physically distinct and hosts its own endemic species. The Springfield karst subsection is an area of significant aquatic karst systems in limestone, and includes endemic species such as the Ozark Blind Cavefish (*Amblyopsis rosae*). The White River karst subsection is a dissected region of small cave and spring systems in dolomite, and includes endemic species such as the Tumbling Creek Cave Snail (*Antrobia culveri*). The Salem Plateau karst subsection is a dissected region of dolomite that spans major watersheds of the northeastern Ozarks and includes endemic species such as the Salem Cave Crayfish (*Cambarus hubrichti*). The Northern Border karst subsection includes areas of limestone sinkhole and cavern systems, and hosts endemic species such as the Pink Planarian (*Macrocotyla glandulosa*). The Eastern Border karst subsection is a karst sinkhole and cavern area that has been split by the Mississippi River. On the Missouri side of the river is the Perryville Karst Plain, host to endemic species such as the Stygian Cave Snail (*Amnicola stygius*). On the Illinois side of the river is the Renault Karst Plain, host to the endemic Illinois Cave Amphipod (*Gammarus acherondytes*).

Figure 3. Ozarks Ecoregion Karst Subsections

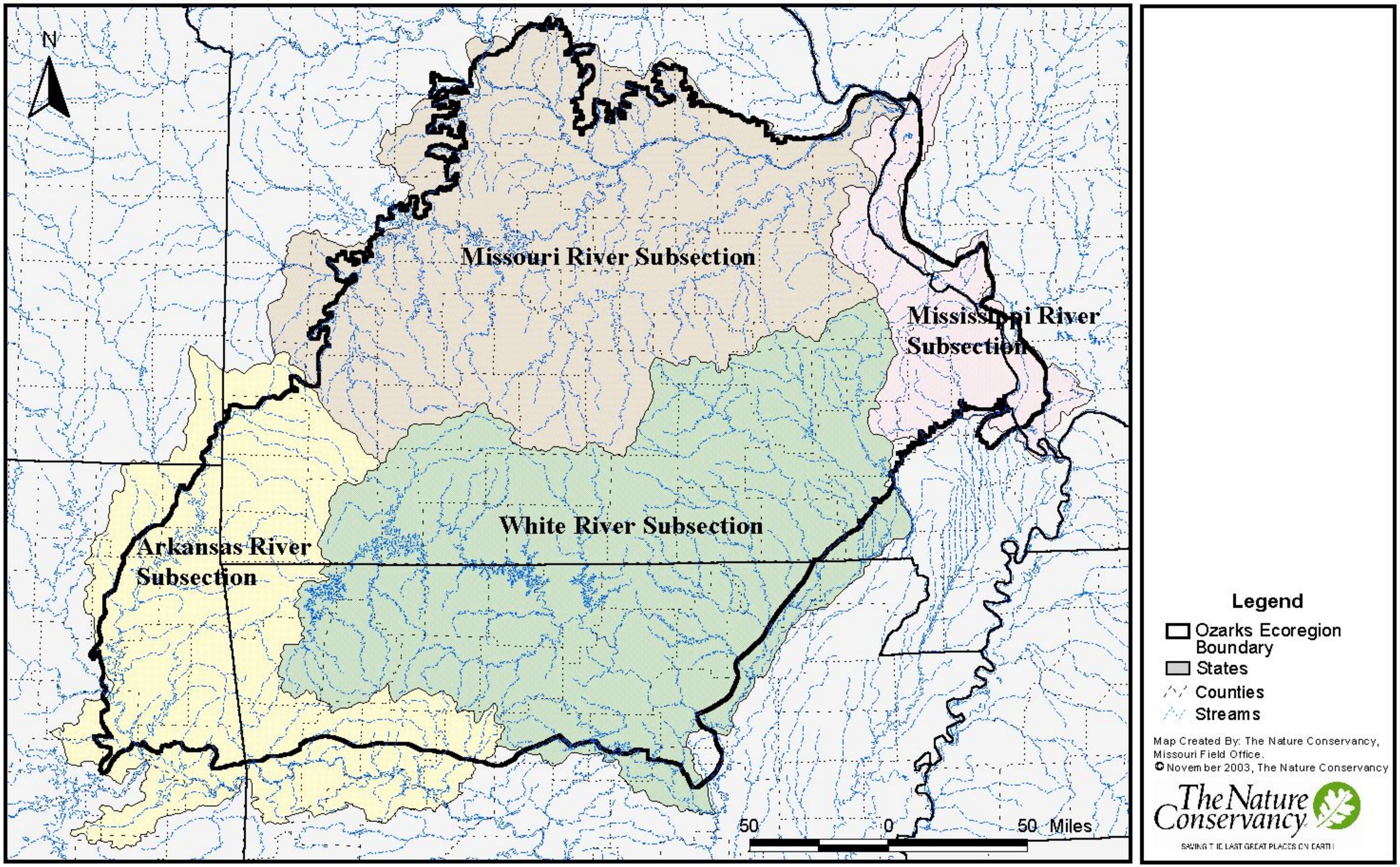


Aquatic subsections

Because of the slow geologic uplift of the Ozark region over the past 100 million years, the landscape is deeply dissected by clear-flowing, often spring-fed, moderate- to high-gradient streams. As with the karst systems, Ozark aquatic systems contain species found nowhere else on earth. Some of the largest freshwater springs in North America occur in the region, as well as more than 9,000 documented caves and thousands of sinkholes. A broad central ridge with elevations generally above 470 meters (1300 feet) runs east-west through the Missouri Ozarks, sloping more steeply to the south than to the north and influencing stream characteristics accordingly.

Aquatic systems of this highland area are bounded by large river systems and alluvial plains, with the Mississippi River on the east, the Missouri River on the north, and the Arkansas River on the south and west. Great age and geographic isolation have led to a high level of endemic aquatic speciesin the Ozarks, particularly fish, crayfish and mussels. Much of this endemism is associated with subterranean karst systems, springs, and clear-flowing, spring-fed streams. Many endemic species are restricted to individual drainage basins. Larger scale biogeographic patterns follow larger basin drainage patterns, with high levels of similarity among the aquatic biota of each aquatic subsection. The White River aquatic subsection contains streams flowing principally southeastward, and includes the endemic Ozark Shiner (*Notropis ozarcanus*) and Ozark Crayfish (*Orconectes ozarkae)*. The Arkansas River aquatic subsection is comprised of streams flowing principally southwestward, and includes the endemic Neosho Madtom (*Noturus placidus*) and Neosho Mucket (*Lampsilis rafinesqueana*). The Missouri River aquatic subsection streams principally flow northeastward, and include the endemic Niangua Darter (*Etheostoma nianguae*) and Britt's Mussel (*Lampsilis reeviana brittsi*). Streams of the Mississippi River aquatic subsection flow principally eastward, and feed directly into the Mississippi River. This subsection includes the Grotto Sculpin, a recently discovered endemic fish closely related to the Banded Sculpin and so not included here as a target. Many of the fish characteristic of this subsection are not included in this report as targets because they are wide ranging and common east of the Ozarks. These aquatic subsections are shown in Figure 4.

Figure 4. Ozarks Ecoregion Aquatic Subsections



4. CONSERVATION TARGETS

To develop an assessment that delineates the globally significant and irreplaceable ecological and biotic features within an ecoregion, one of the first steps is to develop an enumeration of the conservation targets. This is a list of the species, natural communities and ecological systems whose occurrence in the ecoregion is of global significance from a biodiversity conservation perspective. This multifaceted approach to conservation planning - species, natural communities, and ecological systems – is doubly effective. By ensuring sustainable conservation of the full array of functional natural communities and ecological systems that occur in the ecoregion, it facilitates the efficient conservation of species which are demonstrably of global conservation concern. At the same time this approach facilitates conservation of the much larger group of organisms for which there are little or no data available for conservation planners. This mechanism of imputing sustainable conservation of poorly known or unknown organismal targets through sustainable conservation of the full spectrum of autochthonous natural communities is often referred to as the coarse filter approach.

The key goal of ecoregional conservation from the Conservancy's perspective is the conservation of multiple examples of all elements of the autochthonous biota in sustainable, interactive arrays. Theoretically, this could be accomplished by conserving functional examples of all natural communities that occur in the ecoregion, since all of the biota in the ecoregion are associated with at least one natural community. In practice, additional focus on individual species in several categories is necessary to buffer against uncertainties in our knowledge of natural communities, and for conceptual clarity, efficient deployment of resources, and ensuring the continued presence within the ecoregion of certain highly vulnerable species. The following account of how conservation targets for the ecoregion were derived and enumerated is divided into separate sections for species, natural communities, and ecological systems.

For the Ozarks ecoregion, the bordering portions of the major rivers — the Arkansas, Missouri and Mississippi rivers — and their associated aquatic species were excluded. These large river systems are essentially peripheral to the ecoregion and function on spatial and process regime scales that transcend individual terrestrial ecoregions, making piecemeal attempts at conservation planning counterproductive. Conservation planning and implementation for these large rivers is best accomplished through assessments such as The Nature Conservancy's Upper Mississippi River Project (Weitzell, et al. 2003). Four target fish species restricted to the mainstem channel communities of these big rivers are excluded from this assessment: Pallid Sturgeon (*Scaphirhynchus albus*), Bluehead Shiner (*Pteronotropsis hubbsii*), Sicklefin Chub (*Hybopsis meeki*), and Sturgeon Chub (*Hybopsis gelida*). Additionally, two other fish included in this assessment occur in the lower reaches of Ozark rivers such as the Osage and Gasconade rivers, but the majority of the local populations occur in the big rivers and is not captured in this assessment. These species are the Western Sand Darter (*Ammocrypta clara*) and the Lake Sturgeon (*Acipenser fulvescens*).

Species Targets

Five general categories of species, referred to as target classes, were identified as ecoregional conservation targets based on their distribution, conservation status, and performance in the contemporary landscape: 1) endemic species; 2) modal species; 3) globally rare species; 4) declining species; 5) highly disjunct species. These categories were developed and populated through synthesis of a diverse cohort of sources, including Natural Heritage Program data, published literature reports, online databases, unpublished field data, and expert opinion. Although data quality and quantity vary widely among different organismal groups, and sometimes among different states for the same organismal group, attempts were made to determine species targets from the broadest possible spectrum of Ozark biota. Still, this list does not capture all target species in the ecoregion. Numerous examples of Ozark biota are currently undescribed or too little is known regarding their potential conservation significance or geographic distribution to be included as species targets at this point. For example, Harris and Ladd (2003) enumerate more than 50 undescribed species of lichens in the Ozarks ecoregion. Future iterations of the Ozarks Ecoregional Assessment should continue to

refine the list across all organismal groups. A total of 407 species were identified as species targets in the Ozarks ecoregion.

To streamline the selection process, species targets were selected hierarchically by target class according to the sequence enumerated below; that is, all endemic species (#1 below) were selected first, and the remaining biota of the Ozarks were screened for modality (#2 below) within the ecoregion. After selecting modal species, the remaining biota were then screened for globally rare taxa (#3 below) and so on. Thus, the category of globally rare species targets actually represents the non-endemic, non-modal taxa occurring in the Ozarks that are globally rare, and not the full array of globally rare species in the ecoregion.

Brief descriptions and examples of the target classes used in the Ozarks are as follows:
1. Endemic species — These are species whose entire global range is restricted to the Ozarks ecoregion. Because such organisms occur nowhere else on Earth, they must become conservation targets in the Ozarks to ensure their continued existence. In practice, a few species that are essentially endemic to the Ozarks ecoregion, but with a single outlier population outside of the ecoregion, are considered to be endemics for the purposes of this assessment. For example, the Ozark Crocus (*Tradescantia longipes*) a common spring wildflower restricted to the Ozarks except for an outlier population in the Ouachita Mountain region to the south, is considered an endemic species in this assessment. Of the 407 total species targets identified within the Ozarks ecoregion, 159 (39%) are classified as endemic. This further reinforces the importance of the Ozarks as a New World temperate center of endemism. Note that not all endemic species are rare — for instance Bush's Skullcap (*Scutellaria bushii*), an attractive blue-flowered mint, is common on dolomite glades in the eastern Ozarks of Missouri and Arkansas. The power of ecoregional conservation assessment is that such taxa are identified and documented as globally significant in advance of critical threats to species survival, allowing more efficient and effective proactive conservation planning and implementation.

2. Modal species — Another class of species targets encompasses organisms which may have broad geographic ranges, but for which a majority of the total global population occurs within the Ozarks. For example, the vast majority of the world's population of Banded Sculpin (*Cottus carolinae*), a small fish associated with spring-fed systems, occurs within the Ozarks, even though the species is distributed in other ecoregions in the central United States. For migratory animals, this category includes taxa for which a majority of the global populations utilizes the Ozarks at some point in their life cycle beyond mere transience through the ecoregion, and includes both species that inhabit the Ozarks during breeding season and species that winter in the Ozarks. Seventy-seven (19%) of the 407 species targets in the Ozarks are classified as modal species.

3. Globally rare species — Globally rare species are perhaps the most intuitive target class. These are taxa manifestly in need of explicit conservation attention for their continued existence. For this assessment, global rarity is defined as those species with assigned Global Ranks (G-Ranks) of G1-G3. Global ranks are a simple ranking of a target's relative imperilment and conservation status across its entire range, and are expressed on a scale from G1 (critically imperiled) to G5 (secure). Thus, the California Condor (*Gymnogyps californianus*) is G1 and Common Ragweed (*Ambrosia artemisiifolia*) is G5.

There are two distinct patterns of global rarity: 1) habitat or process limited taxa that were always rare in the post-glacial environment, and 2) formerly more abundant species that have declined as a direct consequence of anthropogenic perturbations associated with the post Euro-settlement environment. The process of identifying these two categories of rare species as conservation priorities is analogous. For all species, provisional ranks were defaulted to the higher priority G-rank: a species ranked G3G4 was considered to be G3 in developing the target list. For species lacking an assigned G rank, as is the case with many cryptic or poorly known organisms, an inferred G-rank was provided if sufficient data were available. Thus, although not assigned a G rank or tracked by NatureServe or local State Natural Heritage programs, the Hellbender Leech (*Batracobdella cryptobranchii*) is obviously a globally rare species, since it is an obligate parasite of

the globally rare Ozark Hellbender (*Cryptobranchus alleghiensis bishopi*). Similarly, although not tracked or ranked, the lichen *Pyrenula michneri* is a globally rare conservation target. Formerly thought to be extinct (Harris 1989), and last documented alive in 1893 in Ontario, Canada, this lichen is currently known in the entire world only from a single recently discovered site along the Eleven Point River in the Missouri Ozarks. Eighty-one (20%) of the 407 species targets in the Ozarks are classified as globally rare taxa. Because of the hierarchical nature of the target derivation, and the fact that many endemic and modal species targets are also globally rare, the actual number of taxa in the Ozarks with priority G-ranks (G1, G2 or G3) is actually significantly higher (51%), as shown in the accompanying chart.

Global Rank Distribution of Target Taxa in the Ozarks Ecoregion

G-rank	Number of Taxa	Percent of Total Target Taxa
?	32	7.9
1	46	11.3
2	53	13.0
3	109	26.8
4	70	17.2
5	97	23.8
Total	**407**	**100**

4. Declining species — Regardless of their current status or global distribution, species that are currently experiencing significant range-wide declines are included as conservation targets. As used in this assessment, significant decline is defined as an estimated or inferred global population reduction of 40% or more in the last two centuries, with no evidence of sustainable population rebound in the past two decades. As a practical matter, for all of the Ozark species in this category, these declines are the direct result of post Euro-settlement anthropogenic patterns. An example of a declining species is the Cerulean Warbler (*Dendroica cerulea*) which is experiencing significant population decline throughout its range. Thirty-two (8%) of the 407 Ozark species targets are considered to be declining species.

5. Highly disjunct species — A distinct cohort of Ozark biota consists of taxa which have broad geographic distributions in regions remote from midcontinental North America, but for which the Ozark populations represent outliers typically several hundred miles disjunct from the main range of the species. There are compelling arguments from conservation biology and genetic perspectives for the conservation of peripheral and disjunct populations, which often have higher aggregate heterozygosity and contain a disproportionate amount of total genetic diversity for the species. Many of the highly disjunct species in the Ozarks are relictual species from the Wisconsonian glacial period, when the Ozarks served as a refugium for biota displaced from further north. During the past 15,000 years, as the glaciers receded and the climate and environment of the Ozarks became similar to that of today, some of the species present in the Ozarks during the glacial period managed to survive in suitable microhabitats, and are today far removed from the nearest occurrences of the same species far to the north, such as the Four-toed Salamander (*Hemidactylium scutatum*). Another cohort of disjunct species includes taxa with biogeographic affinities to the southwestern region, such as Ashe Juniper (*Juniperus ashei*); these taxa are presumably relictual from the post-glacial xerothermic period when the climate was warmer and significantly drier, much like the environment in our modern southwestern deserts. A third class of disjunct species are organisms associated with a moist, warm environment associated with the modern Gulf Coastal Plain. Fifty-eight (14%) of the 407 total species targets in the Ozarks are classified as highly disjunct species.

For this assessment, species targets are further classified based on conservation status, the system they occur in, and their habitat preference described as follows:

1. Primary/secondary species targets — Primary targets are used for initial portfolio selection, and consist of species classified as endemic, modal, and the rarest subset of globally rare species (those ranked G1 or G2). Secondary targets are used for assessing portfolio completeness, and consist of species classified as declining, highly disjunct, and globally rare species ranked G3. Note that incomplete occurrence data precludes determination of target capture for many secondary species or their incorporation in the portfolio design process.

2. System classes — Each target species is then assigned to one of three system classes based on its pattern of occurrence in the Ozarks: terrestrial, aquatic, or karst. Karst species are those obligately associated with caves, springs, and phreatic features, and include both aquatic (e.g. cavefish) and terrestrial (e.g. bats) organisms. Aquatic species are obligately associated with surface aquatic habitats, including stream and river systems, ponds, sloughs and other aquatic environments. Terrestrial species are associated with surface natural communities including wetlands, and include both aquatic and terrestrial organisms. Each species is thus linked to the appropriate natural system type (surface aquatic, subterranean terrestrial and aquatic, and terrestrial with wetland), without regard to the myriad possible physiognomic and taxonomic attributes for the taxon.

3. General habitat class — Each target species is also assigned a general habitat class following a similar systems based approach. Karst system species were either Cave (CV) if emergent or Aquatic Cave (AQC) if associated with subterranean waters. Troglophiles such as bat species were assigned to "Cave" (CV) habitat for assessment purposes. Surface aquatic system species were assigned to a general category (AQ) if data was lacking or one of four other distributions as appropriate: habitat generalists (AQG) for those found from headwaters to large rivers, headwater species (AQH) for those found in a variety of habitats from headwaters to small rivers, river species (AQR) for those found from small to large rivers, and spring species (AQS) for those obligate to springs and spring runs. Terrestrial system species were assigned to the following habitat categories: Bottomland Forest (BF), Bottomland Prairie (BP), Bottomland Savanna and Woodland (BS), Fens and Seeps (FS), Glade (GG), Habitat Generalist (HG), Rock Outcrop (RO), Shrub Habitat (SH), Sinkhole Pond (SP), Upland Mesic Forest (UF), Upland Prairie (UP), Upland Savanna and Woodland (US), and Wetland (WL). Appendix 1 provides an enumeration of all Ozarks ecoregional targets, their habitat classes, and other attributes.

Terrestrial Natural Community Targets

The pattern of biotic assemblages in the landscape reflects a punctuated continuum, with numerous variables influencing composition at a particular locus on the earth's surface. This renders the biota of every acre measurably different from any other acre. Still, repeating patterns and associations in response to environment, history and process regime give rise to describable entities with some consistency of biotic pattern. Since this concept of natural communities is largely a construct of convenience for classification purposes, delineating the number and characteristic of these communities is dependent upon perspective and scale.

In the Ozarks ecoregion, an initial circumscription of communities was derived from a Natural Heritage Program list of Ozark terrestrial natural communities (TNC 1999) augmented by data from Kansas and Illinois. This list included coarse classification of karst and aquatic types as well. The list was then evaluated and crosswalked by the core team and selected ecologists familiar with the natural communities of each state. Additionally, the Missouri portion of the natural community list was evaluated against Nelson (1985) and amended to ensure inclusion of the full diversity of Ozark natural communities.

The resulting list of 102 natural community types was then used in an initial experts meeting, held in the fall of 2000, involving the core team and ecologists from all states except Kansas. At this meeting, each natural community was evaluated for its potential occurrence within each of the nineteen terrestrial subsections of the Ozarks ecoregion. In the course of this process it became evident that several putative community types recognized by Natural Heritage programs were untenable from a conservation planning perspective. This resulted from one of four primary reasons: 1) community classification largely based on current condition rather than sustainable synecologically intact states; 2) microseparation of phases of variable, dynamic communities based on transitory or ephemeral compositional attributes - in practice such systems are inseparable and unmanageable as static entities; 3) a classification system based solely on vegetation is not an adequate means of natural community delineation in many instances; and 4) lack of occurrence data through much of the ecoregion for many narrowly defined community types.

To address these issues, and to create a classification system for natural communities that reflected on-the-ground interrelationships and facilitated applied conservation planning and tracking, the entire subset of natural communities was re-evaluated by a team of ecologists and the core team, with careful consideration of all of the comments and issues raised at the natural community experts meeting. This resulted in recombination of several closely related natural communities into a series of natural community complexes. The resulting classification is more reflective of the variability and occurrence of the communities in the landscape, and facilitates tracking of discrete entities for conservation assessment. As a result of this process, a total of 59 terrestrial natural communities and functional natural community complexes were recognized as occurring in the Ozarks ecoregion (Appendix 1C). This includes communities which occurred within the ecoregion in the recent post-glacial period, even if no examples are currently known to exist.

These 59 terrestrial natural communities are the target universe for terrestrial conservation planning in the Ozarks. In every case where a natural community type occurred within a terrestrial subsection, the pre-Eurosettlement occurrence pattern of that community within the subsection (matrix, large patch, small patch) was also determined. Matrix communities occur in large expanses of typically more than 1,000 acres (400 ha). These communities shape the dynamics of the landscape where they occur, influencing the biological and physical relationships of the embedded smaller community types. Large patch communities typically occur on a scale from 100 (40 ha) to 1,000 acres (400 ha), and are usually embedded within matrix communities. Small patch natural communities are typically limited by discrete physical factors, such as hydrological or bedrock features, and are usually 100 acres or less in extent.

The resulting table provides a baseline of community occurrence and pattern across the ecoregion (Appendix 2). This table of natural community occurrence and pattern by terrestrial subsection across the ecoregion can be used to ensure that the full spectrum of natural community variability within the ecoregion is captured sufficiently to serve as an adequate coarse filter. Natural community pattern is an important consideration in assessing viability, since a community type that originally occurred as a matrix community is probably not viable as a small patch occurrence in a degraded landscape.

Karst Natural Community Targets

Enumeration of karst natural communities from state Natural Heritage programs produced a short list of springs, dry caves and wet caves. Hebrank's (1989) geologic classification system for Ozark caves utilizes physical attributes such as extent, planform and ingress or egress of water. Nelson (1985) has adapted a version of that system that designates five cave types. A similar classification system for springs (Vineyard, 1974) also follows physical attributes such as size class of discharge and subsurface flow regime (vadose, phreatic, or ebb & flow from a siphon). However, neither Heritage Program data or GIS map data were able to reliably distinguish needed attributes to be able to apply these cave or spring classification systems. At best, map data supply name and location information for the two largest size classes of springs and similar information for a very small set of cave features. While speleological databases in the respective states may

contain attributes needed for cave classification, they are proprietary in nature and closely held to protect sensitive cave resources from disturbance.

For pragmatic reasons stemming from data limitations, springs have been broadly classified into three community types for the Ozarks: Large Spring, Small Spring, and Saline Spring. Large springs are the first and second order springs (mean discharge > 10 cfs) commonly issuing from the Ozark aquifer of Cambrian and Ordovician age dolomite along mainstems of large and small rivers. Small springs are third through fifth order springs (mean discharge< 10 cfs) issuing typically from shallow and relatively local recharge areas. Small springs are often key features of small creek systems that maintain stable cold water flow throughout the year. Saline spring is a unique spring type restricted to one small area on the north edge of the ecoregion. Here small springs flowing through subsurface marine sediments result in saline discharges. Caves are classified in this assessment as Cave and Aquatic Cave. Cave is a terrestrial cave environment supporting troglobites that are sustained through nutrient inflows and droppings of troglophiles, typically bats and/or crickets. Aquatic caves are subterranean passages wholly or partially filled with water supporting stygobites. Large cave systems will frequently include both of these subterranean environments — a cave system with a surface opening for troglophiles and a cave stream with considerable vadose recharge.

Aquatic Natural Community Targets

The only functional aquatic natural community classification system for the Ozarks at the time of this assessment was Pflieger (1989). This system is roughly based on four size classes defined by miles from basin head, as well as categories of spring runs, sloughs, and sinkhole ponds. More modern classification systems also take into account substrate type, flow regime, temperature regime, and geomorphic characters such as gradient, sinuosity, and floodplain character. However, such systems are complex in the number of permutations of possible characters and challenging to accurately map. Aquatic gap analysis programs designed to meet these challenges were underway in Ozarks at the time of this assessment. Rather than attempt to generate a less sophisticated version of the aquatic gap analysis for this assessment, the Pflieger classification has been used in this assessment. Sinkhole pond environments are captured under terrestrial communities, leaving six functional aquatic communities for the Ozarks: Spring Run, Slough, Headwater Stream, Creek, Small River, and Large River. As explained in the introduction, Big Rivers of the Missouri and Mississippi have been excluded from this assessment and will be treated in separate assessments.

Even though this aquatic classification is coarse, the robust suite of aquatic species targets results in a comprehensive fine filter selection process. A total of 135 species targets (33% of all Ozark species targets) are surface aquatic species. These targets span the full range of aquatic organismal groups, including reptiles, fish, crayfish, mussels, amphipods, isopods, other invertebrate groups, and aquatic plants. As discussed previously, the functional habitat of each aquatic species was determined and coded: obligate spring branch (AQS), headwaters (AQH), rivers (AQR), and habitat generalists (AQG). A rapid informal analysis of habitat pattern representation among target aquatic species reveals that the target species universe is well stratified among the full range of aquatic macrohabitats in the ecoregion. Additionally, the target species are well stratified biogeographically among the three main aquatic faunal subsections of the Ozarks, although represented to a somewhat lesser degree to a somewhat lesser degree in the Mississippi River aquatic subsection. Since this assessment incorporates adequate to excellent occurrence data for a robust suite of aquatic targets through a majority of the region, including species with habitat affinities spanning the full spectrum of Ozarks aquatic habitats, the fine filter selections for aquatic target species results in a comprehensive portfolio encompassing the full array of aquatic community diversity.

Ecological System Targets

Because larger, more biologically and physically complex areas have a greater inherent stability and buffering effect against the inevitable changes that beset all environments, targets are most successfully conserved within intact ecological systems. Ecological systems are defined as:

> *Dynamic spatial assemblages of ecological communities that 1) occur together on the landscape; 2) are tied by similar ecological processes, underlying environmental features or environmental gradients; and 3) form a robust cohesive, and distinguishable unit on the ground. (Groves et al. 2000)*

Within the Ozarks ecoregion, each subsection is characterized by a distinct association of natural community types, patterns, and spatial relationships. This characteristic complex of intermingled, interactive natural communities constitutes a representative ecological system for the subsection. Where feasible on the landscape, conservation of ecological targets within functional ecological systems provides a higher probability of sustainability over time. Characteristic ecological systems for each terrestrial subsection are described Table 1; Nigh and Schroeder (2002) provide more detailed descriptions of terrestrial ecological systems for Missouri terrestrial subsections. Aquatic ecological systems are defined as functional stream networks containing viable and interconnected representations of the full array of stream magnitude from headwaters through mainstem reaches.

5. Conservation Goals

To sustainably conserve the full array of biological diversity within an ecoregion, conservation goals must be sufficiently robust to ensure the continued survival of the target over time and stochastic events. In the case of natural communities, conservation goals must take into account the spatial pattern of variation inherent in each natural community type. In order to ensure efficiency and maximize feasibility, conservation goals must also attempt to predict the minimum numerical thresholds to accomplish this.

Unfortunately, much conjectural but little verifiable information exists regarding the two most compelling questions in conservation biology: how many occurrences and how much area per occurrence are sufficient to ensure sustainable conservation? What little information exists is largely based on untested theoretical models or is based upon organisms or systems for which there is no confidence that the results can reliably be extrapolated to other targets. Thus, conservation planning must rely on expert opinion, a few general tenants (e.g. Groves et al. 2000), and insightful predictive analyses.

The conservation goals derived for the Ozarks ecoregion, developed to ensure target viability over a minimum one hundred-year interval, are enumerated by target type in the following discussion. These goals are based on best available information, and subject to the limitations discussed previously. Future iterations of this assessment will change to reflect better predictive tools that are being developed in conservation biology.

Goals for Terrestrial, Aquatic, and Karst Species Targets

In general, a default minimum conservation goal for species is to conserve two viable populations of species targets in each ecoregion or ecoregional section where they occur, with a minimum of ten conserved populations across the global range of the species. A variation of this was used in deriving species conservation goals in the Ozarks ecoregion.

For every primary species target (endemic, modal, and G1-G2 species), the goal was to capture in the aggregate ecoregional portfolio a total of ten occurrences within the ecoregion or all viable populations for taxa known from less than 10 sites. For planning purposes, each discernable interactive aggregation of metapopulations was deemed a single occurrence. For aquatic species, each eight-digit watershed (HUC8[1]) where the species was present, even if represented by multiple populations, was treated as a single occurrence. For the lowest priority subset of globally rare target species (those ranked G3), the goal was to conserve a minimum of two viable occurrences within the ecoregion, since by definition according to the hierarchical stratification of Ozark targets, all of these species should be better represented in other ecoregions.

No conservation goals were developed for other secondary species targets (declining and highly disjunct species), since in practice more than 50% of these taxa have insufficient, inconsistent or uncertain occurrence and viability data. Those groups for which sufficient data exists were used to crudely test completeness of capture in the portfolio selection practice, and these data indicate that tracked secondary targets were sufficiently captured to meet the goals derived for primary targets.

Goals for Terrestrial Natural Communities

Some ecoregional assessments (e.g. TNC 2000b) have attempted to incorporate consideration of range-wide distribution patterns for natural communities into the development of conservation goals. However, the inherent uncertainty of our understanding of the complexity, composition and intraspecific variation

[1] Hydrologic unit code — a national classification to uniquely identify watersheds within a hierarchical spatial grouping of waterways. The eight digits are comprised of a series of four hierarchical two digit codes designating the region the watershed is in, followed by the sub-region, the accounting unit, and the cataloging unit or watershed.

within supposedly identical community types across geographic ranges calls into question this concept. For example, considering a tallgrass prairie in the Ozarks to be analogous to the natural community of the same name in the western Flint Hills seems inappropriate, despite the facts that they both have coarse structural similarities and linguistic limitations force the two to be squeezed into the same restrictive nomenclatural concept. From a floristic similarity perspective, the Ozark prairie is demonstrably more closely related to other Ozark community types, such as savanna, even though it may appear less similar from a gross structural perspective.

Because of this, the Ozarks ecoregional assessment does not attempt to stratify terrestrial natural community conservation goals according to supposed pattern of occurrence of a particular community type beyond the ecoregion. In essence, we are treating all communities as endemic, in order to ensure that the full range of natural community variability is captured, to provide a true coarse filter for poorly understood organismal groups (which are an overwhelming majority of the components of any natural community), and to buffer against the monumental gaps in our understanding of community variation and dynamics. For perspective, information about the imputed global range and rankings of terrestrial natural communities is included in Appendix 1B.

Conservation goals for terrestrial natural communities were established according to the pattern of community occurrence in the pre-Eurosettlement landscape. For matrix communities, the conservation goal is one viable occurrence in every terrestrial subsection where that community occurred as a matrix system, with a default goal of three conserved viable occurrences regardless of subsectional distribution pattern.

For both large patch and small patch terrestrial natural communities, ecoregional goals are to conserve ten viable examples stratified as broadly as possible across the ecoregion commensurate with embedment in viable matrix communities or matrix community complexes. A second phase of this goal was to include for each community type the five highest quality occurrences in the ecoregion regardless of geographic stratification.

Goals for Aquatic Natural Communities

As discussed previously, most of the aquatic portfolio was derived by using a fine filter selection of constellations of most viable aquatic target species occurrences. To ensure some level of coarse filter selection, the resulting design was tested for broad aquatic community capture in each of the four aquatic subsections. The default conservation goal in each aquatic subsection was to capture viable examples of each coarse community type in three different watersheds in each aquatic subsection. Aquatic biologists and regional fisheries experts were consulted to fill the few resulting gaps that were not selected through the fine filter approach. These sources identified the best quality examples with an emphasis on connectivity to previously selected reaches.

Goals for Karst Targets

As with aquatic systems, selection of conservation priorities was driven primarily through a fine filter selection for species targets. Given the difficulties in obtaining functional karst community data, a surrogate coarse filter selection process was devised. The five best karst areas, defined as the most target-rich from Natural Heritage Program and other karst data sets, were selected in each of the five karst subsections. In practice, there was insufficient cave data to reliably accomplish this in the Northern Border karst subsection. Additionally, all Priority 1 sites for Federally Listed species were automatically included as sites. These were principally bat caves but also included some cave crayfish sites.

Goals for Ecological Systems

Conservation goals for ecological systems were driven by landscape patterns and the need for geographic representation. For each terrestrial subsection within the Ozarks, the goal was to conserve one viable ecological system containing an interactive representation of the principal matrix communities and their associated smaller communities and biota characteristic of that terrestrial subsection. Similarly, an ecoregional goal was to conserve one viable aquatic ecological system connected from headwaters to large river within each of the four aquatic subsections in the ecoregion. Finally, conserving one multi-site karst area within each of the five karst subsections was established as a default goal for karst systems, in light of the overwhelming lack of system-level data for karst habitats.

6. Viability Assessment

A critical factor for ensuring sustainable conservation of biodiversity is the determination of which occurrences of conservation targets are viable. Viable occurrences are those that have a high probability of retaining their conservation targets over time (typically imputed to be a minimum 100 year interval). Obviously, resources expended on conservation targets that are not viable wastes resources and diverts time and conservation attention from potentially viable target occurrences.

As with conservation goals, viability assessment as a disciplined, tested science is virtually nonexistent for most targets. Consequently, viability determinations are based in large measure on theoretical concepts, best available information, and expert opinion. In this assessment, initial viability determinations for natural communities and ecological systems are configured as a yes/no filter, establishing minimum criteria for viability for each target class. Thus, for natural communities and ecological systems, a target occurrence is either viable and has the capability of being sustained over time, or is not viable, with no assurance of being sustainable over time despite management and restoration efforts.

Viability determinations as used in this assessment are a synthesis of three conceptual components: size, condition, and landscape context, as shown below for terrestrial natural community targets.

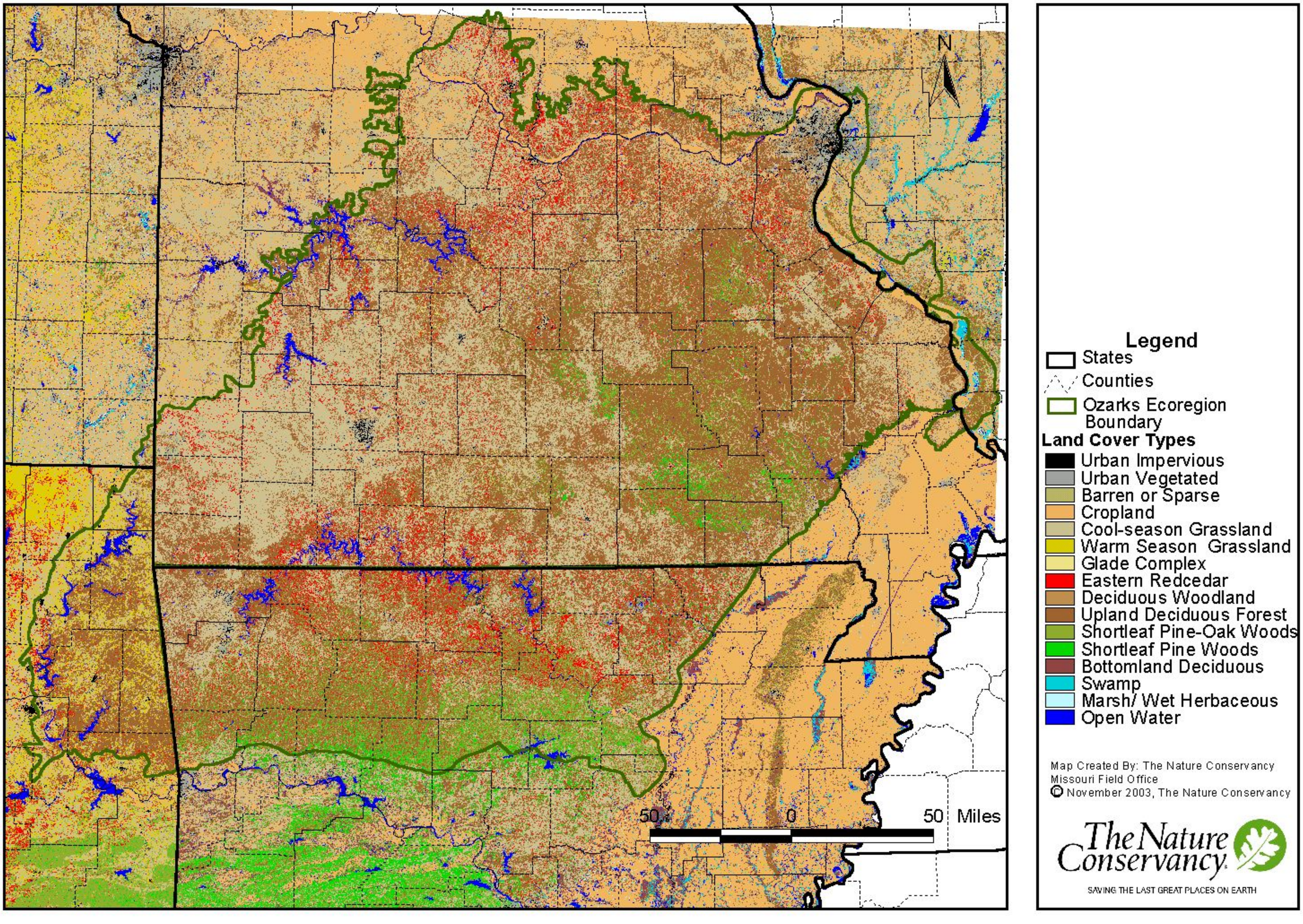
Community Pattern	Minimum Criteria For Viability		
	Size	Condition	Landscape Context[1]
Matrix	> 400 ha (1,000 ac)	EO rank[2] > D, or >80% native cover	>50% native cover in surrounding landscape buffered to 200% of EO size
Large patch	> 40 ha (100 ac)	EO rank (or imputed EO rank) > D	Embedded in viable matrix, or >25% native cover, or >50% structurally similar to native cover
Small patch	100% of original occurrence	EO rank (or imputed EO rank) > D	Embedded in viable matrix, or >25% native cover, or >50% structurally similar to native cover

[1]Current land cover for the ecoregion is shown in Figure 5.
[2]EO rank = element occurrence rank, a relative ranking of the quantity of the target, and ranges from A-D.

In practice, viability considerations are suffused with pragmatic considerations of feasibility and relative ecological health, resulting in a range of relative viability ranks for the occurrences of a given target. These rankings can be useful tools in making decisions about where to deploy conservation resources.

For species targets, viability was often defaulted to the Natural Heritage Program element occurrence rank (EO rank), modified as necessary by expert opinion. For the numerous occurrences without valid EO ranks, expert opinion was used to assign a surrogate viability rank. Unless there was explicit evidence to the contrary, occurrences within viable ecological systems were axiomatically considered to be viable. For karst species occurrences without Heritage rankings, occurrences designated by experts within the last 20 years as "good" and occurrences within karst features containing occurrence records of similar species with viable Heritage ranks, are considered viable.

Figure 5. Ozarks Ecoregion Current Land Cover



State Natural Heritage Program tracking data for many target aquatic species was inconsistent. Ecoregionally important species with multi-state distributions are often tracked in one state where the species is less common but not tracked in the state or states containing the main range for the species. To overcome this phenomenon, a database was compiled for the occurrences of all aquatic target species by eight-digit hydrologic unit (HUC8) within the ecoregion. Data were assembled from Heritage data sets, the Missouri Aquatic Gap project, the Ozark-Ouachita Highlands Assessment data (USDA Forest Service 1999), and personal communications from Conservancy staff and other biologists in the ecoregion. Each record of this HUC8 aquatic occurrence table was populated with four components for viability ranking.

These four components of aquatic target viability rankings are: 1) size, as indicated by population size; 2) condition, as reflected by Environmental Protection Agency watershed ratings (USEPA 2002); and landscape context, as reflected by both 3) percent native land cover in the watershed and 4) absence of mainstem reservoirs. Details of how these criteria were derived and applied for each of the criteria are explained below.

1. Size - Population rank is a relative ranking system based on collection data for common species and Heritage rankings for rarer taxa. The default ranking for data from recent collections or expert observations when more detailed abundance data is lacking is “B” rank. An “A” rank is the largest population occurrence(s) for rare species or a species that is clearly abundant. A rank of “B” is the default rank for less abundant occurrences. A rank of “C” is for species that have clearly a less common distribution in the watershed than other areas, or that have been declining in recent years as shown by Heritage or collections data. A “D” rank is the lowest abundance ranking, often derived from spurious data or questionable identifications. A rank of “I” is reserved for those occurrences known to be from introductions either by accident from inter-basin transfer of bait species by fishermen, or purposeful introductions for sport fishery management.

2. Condition - EPA watershed ratings are a composite index of watershed indicators that relate to overall water quality in an eight-digit hydrologic unit. These indices synthesize state water quality inventory data and other indicators of public health and environmental concern, and assign one of six categories to the watershed, ranging from “Better water quality" (low vulnerability) to “Water quality problems" (high vulnerability). Because some Ozark watersheds lack sufficient data for the complete EPA classifications, USGS water quality data were used to correlate data from non-EPA ranked basins to adjacent basins with EPA rankings. These rankings are expressed as one of four categories ranging from "very good" to "bad", and are shown in Figure 6A.

3. Native land cover - Land Use Land Cover (LULC) Rank was calculated from GIS grid coverage for the ecoregion from late 1990’s satellite data assembled for various state Gap Analysis projects. The sixteen vegetation classes were reduced to native and non-native cover and percent cover of native then calculated for each HUC8. Classifying using a natural break-point statistical segregation yielded four ranks: Very Good = 69-94%, Good = 55-69%, Moderate = 42-55%, Bad = 28-42%. These rankings are shown in Figure 6B.

4. Mainstem reservoirs - Mainstem rankings were based on two factors, the presence or absence of mainstem dams and reservoirs and the number of miles of undammed mainstem river. Miles of mainstem were calculated from EPA stream reach files [RF1], based on a river beginning 30 miles from the head of the stream and ending at the base of the hydrologic unit. All miles of mainstem under impoundment were excluded from the measure, and a buffer of 20 miles below any mainstem dam was excluded from the measure. Rankings were applied as follows: Very Good = greater than 30 miles of mainstem with no dams or reservoirs, Good = greater than 30 miles of mainstem with dam(s) altering flow or fish migration, Moderate = less than 30 miles of mainstem with no dams, Bad = less than 30 miles of mainstem with dam(s). These rankings can be seen in Figure 6C.

These four rankings can be combined for each HUC8 occurrence record to give a relative viability ranking for the watershed. From these rankings, best watershed occurrences can be selected for any target species. In most cases for primary targets, these would represent the best known global occurrences for the target. Cross tabulations can then reveal the number of highest ranking occurrences for each HUC8 in the ecoregion, which serves as a rough indicator of conservation priority. Table 2 shows the distribution of the number of highest ranked species occurrences for Ozark watersheds. Note that the Buffalo and Current rivers each contain the world's best populations for a significant number of target aquatic species, together accounting for the best occurrences for 34 aquatic taxa.

Table 2. Aquatic Site Target and Best Occurrence Tally

Site Number	Name	Miles	Subsection	States	Targets	Best
1	Baron Fork	38	AR	OK	24	0
2	Big Creek	31	WR	MO	3	1
3	Big Piney River	67	MO	MO	37	7
4	Big River	122	MO	MO	28	1
5	Black River	172	WR	MO	44	4
6	Bonne Femme Creek	15	MO	MO	2	0
7	Bourbeuse River	91	MO	MO	21	0
8	Brush Creek	10	MO	MO	1	0
9	Bryant Creek	39	WR	MO	2	0
10	Buffalo River	137	WR	AR	28	9
11	Castor River	50	WR	MO	21	0
13	Clear Creek	20	MS	IL	1	0
14	Eleven Point River	82	WR	ARMO	38	4
15	Elk River	67.6	AR	MO	30	3
16	Gasconade River	228.4	MO	MO	26	1
17	Huzzah/Courtois Creeks	98.4	MO	MO	2	1
18	Jacks Fork River	33.9	WR	MO	27	2
20	Kings River	60.1	WR	AR	30	2
21	Little Black River	27.1	WR	MO	3	0
22	Little Niangua River	27.8	MO	MO	3	0
23	Little Red River	259	WR	AR	25	4
24	Maries River	32.6	MO	MO	2	0
25	Meramec River	157.7	MO	MO	31	6
26	Moniteau Creek	37.4	MO	MO	14	1
27	Mulberry River	63.7	AR	AR	13	4
28	Niangua River	45.7	MO	MO	22	1
29	North Fork White River	98.4	WR	MO	37	6
30	Osage Fork Gasconade River	66	MO	MO	25	1
31	Osage River	62	MO	MO	20	0
32	River aux Vases	23	MS	MO	1	0
33	Rocky Creek	8.2	WR	MO	11	1
34	Roubidoux Creek	47.7	MO	MO	3	0
35	Saline Creek	25.7	MS	MO	1	0
36	Salt Creek	2.5	MO	MO	0	0
38	Spavinaw Creek	28.5	AR	AROK	16	0
39	Spring River, AR	154.9	WR	ARMO	37	1
40	Spring River	107.8	AR	MOKSOK	40	1
41	St Francis River	63.8	WR	MO	30	2
42	Strawberry River	218.7	WR	AR	26	1
43	Tavern Creek	44.3	MO	MO	2	0
44	Current River	130	WR	MO	35	25
45	Indian Creek	12	WR	ARMO	3	2
46	Bear Creek	11	WR	MO	2	0

Figure 6. Ozarks Ecoregion Watershed Quality Rankings Used to Assess Viability of Aquatic Targets

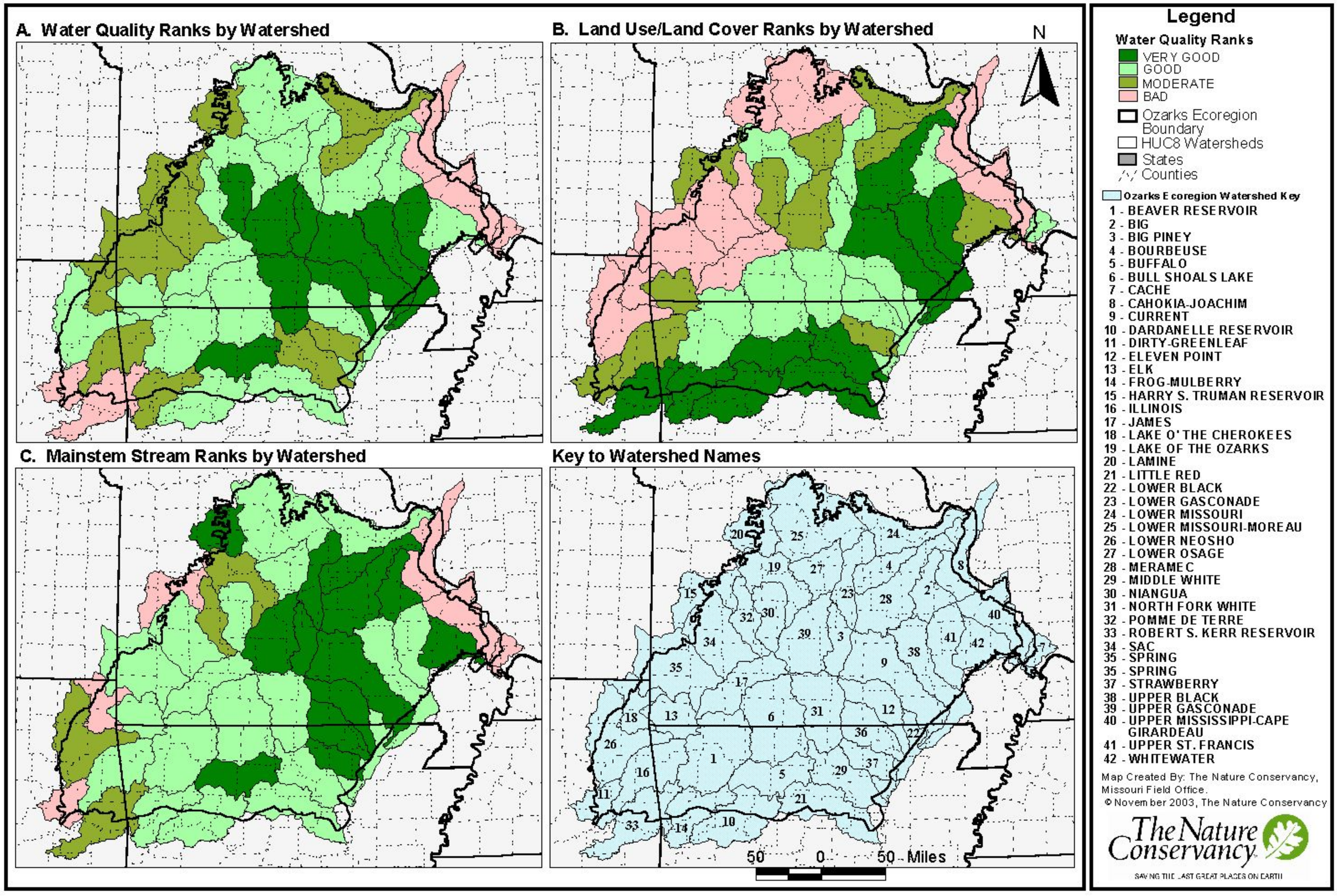
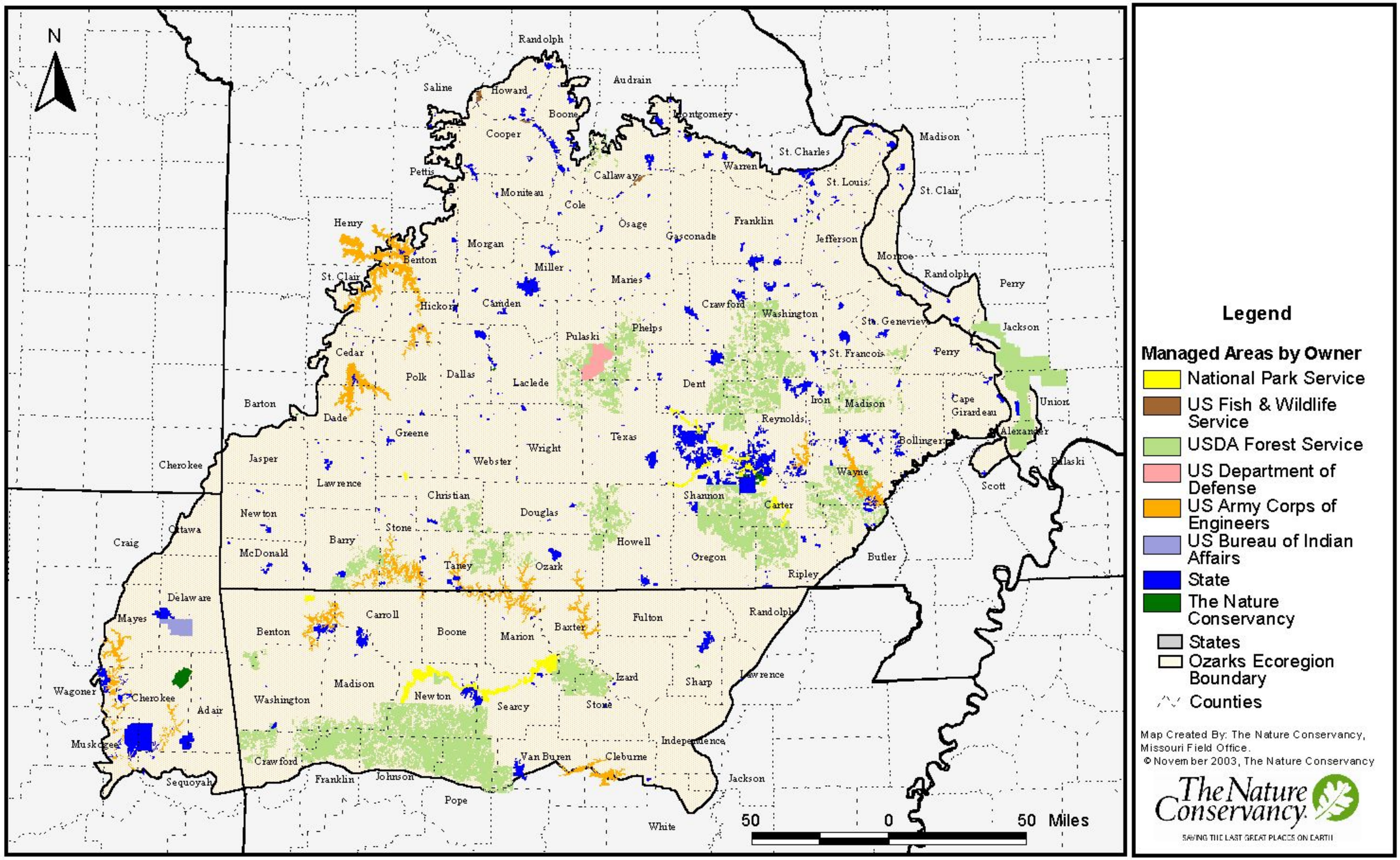


Figure 7. Ozarks Ecoregion Managed Areas



7. Portfolio Assembly and Statistics

The Ozarks ecoregional portfolio (Figure 8) was developed as an iterative assembly process, always attempting to meet conservation goals for all targets as efficiently as possible while maximizing aggregate viability. Portfolio assembly was an additive process to fully integrate each of the target types (terrestrial, surface aquatic, karst). This entailed a series of meetings among the core team and other Conservancy experts to complete a sequence of procedures as described below. During these stages of the assembly process, spatial data sets were projected onto a dry erase board and markers were used to delineate and successively modify portfolio sites as part of an interactive discussion process. Final results for each site were then digitized. Target capture was simultaneously evaluated through each modification and recorded in tabular data sets on completion of each stage of discussion.

1. Aquatic portfolio sites were designated by first selecting all viable occurrences for targets where the total known viable occurrences were required to meet conservation goals. Following this, additional aquatic sites were selected to provide the most efficient target capture of other aquatic targets. This aquatic portfolio was then augmented as needed to include at least one viable, connected stream network system in each aquatic subsection. The resulting portfolio was then reviewed by range of experts in the respective states. The initial aquatic portfolio was adjusted based on comments and information provided through the review process to ensure maximum target capture and efficiency.
2. Matrix natural community selection to meet goals within each terrestrial subsection were made by wherever possible selecting viable occurrences within the watersheds of previously identified aquatic sites. Next, the best examples of viable matrix communities within each terrestrial subsection were selected as needed to meet conservation goals. This process resulted in a series of terrestrial landscape portfolio areas.
3. The resulting portfolio of aquatic sites and terrestrial landscape areas was evaluated for capture of large patch and small patch terrestrial communities. Additional community target occurrences were selected as needed to meet conservation goals and ensure that the best known occurrences of each natural community type were included in the portfolio. The resulting portfolio was empirically assessed for efficiency, and adjusted where possible to secure multiple target occurrences within selected portfolio sites.
4. The resulting portfolio was evaluated for non-karst primary species targets capture, and additional selections made as needed to meet conservation goals for primary species. The resulting portfolio was reviewed and adjusted for maximum efficiency.
5. The above steps resulted in a preliminary Ozarks ecoregional portfolio. As a test, this was screened to assess capture of non-karst secondary species targets. Many secondary species targets have insufficient occurrence data to be effectively considered in the selection process, but preliminary data for those targets for which sufficient data were available indicate that the portfolio largely meets conservation goals for secondary species targets.
6. Karst target occurrence data were aggregated from all available sources and used to determine the five caves in each karst subsection containing the highest numbers of target occurrences. To this were added other karst sites to meet conservation goals for karst species targets. The resulting cave and spring site selections were used to synthesize karst portfolio areas by using known or imputed subsurface recharge boundaries.
7. The aggregate portfolio from this sequence was then assessed for ecological systems capture by subsection within each type (terrestrial, aquatic, and karst).

Conservation goals were verifiably met for 86 of the 270 primary species targets (32%). Conservation goals for an additional 78 primary species targets (29%) were probably met, based on anecdotal and empirical evidence. Taken together with the 26 primary targets for which there are good data and for which all known viable populations were captured, this results in goal attainment or maximum possible

progress towards goal attainment for 70% of primary species targets. Of the remaining 80 primary targets species, 73 are identified as having major data or knowledge gaps making assessment of target capture impossible.

Using the ecological systems defined in Table 1, conservation goals for terrestrial ecological systems were met for 16 of the 19 subsections. Conservation goals for terrestrial ecological systems were not met for the Springfield Plain, Prairie Ozark Border, or Mississippi River Alluvial Plain Subsections. In each case, the lack of an extant viable matrix prairie community type precluded goal attainment.

Conservation goals for aquatic ecological systems were met for all aquatic subsections except the Arkansas River aquatic subsection, where dams on the Arkansas River system destroy ecological connectivity of every stream system in the subsection. Conservation goals for karst ecological systems were fully met within all karst subsections in the ecoregion.

Total area of the terrestrial landscape areas is 5.26 million acres. The sixty-one karst areas have a collective total area of 1.24 million acres, but an estimated 65% of this area overlaps with terrestrial landscape areas. If the imputed size of each small scale terrestrial site is defaulted to 500 acres, then the aggregate terrestrial and karst portfolio occupies 5.72 million acres, or less than 16.5% of the total surface area of the Ozarks. Aquatic priority sites encompass 3,179 stream miles, or approximately 19% of the aggregate stream reaches within the Ozarks.

This represents an efficient conservation design, which is presumably due in part to the relatively intact biological landscape of much of the Ozark region. For comparison, the ecoregional portfolio for the Osage Plains/Flint Hills ecoregion encompasses 27% of the ecoregion (TNC 2000b), and is less successful at meeting ecoregional conservation goals.

Assessing success in meeting conservation goals is hindered by the fact that some of the primary species targets and many of the secondary species targets are not tracked, and little occurrence data is available. Thus, as indicated by the comments field for many entries in Appendix 3, a capture rate of ‘0’ may not be indicative that conservation goals were not met. The same is true for small and large patch terrestrial communities, and future iterations of this plan will have to develop a refined method of calculating or imputing capture of untracked and incompletely tracked elements of conservation significance.

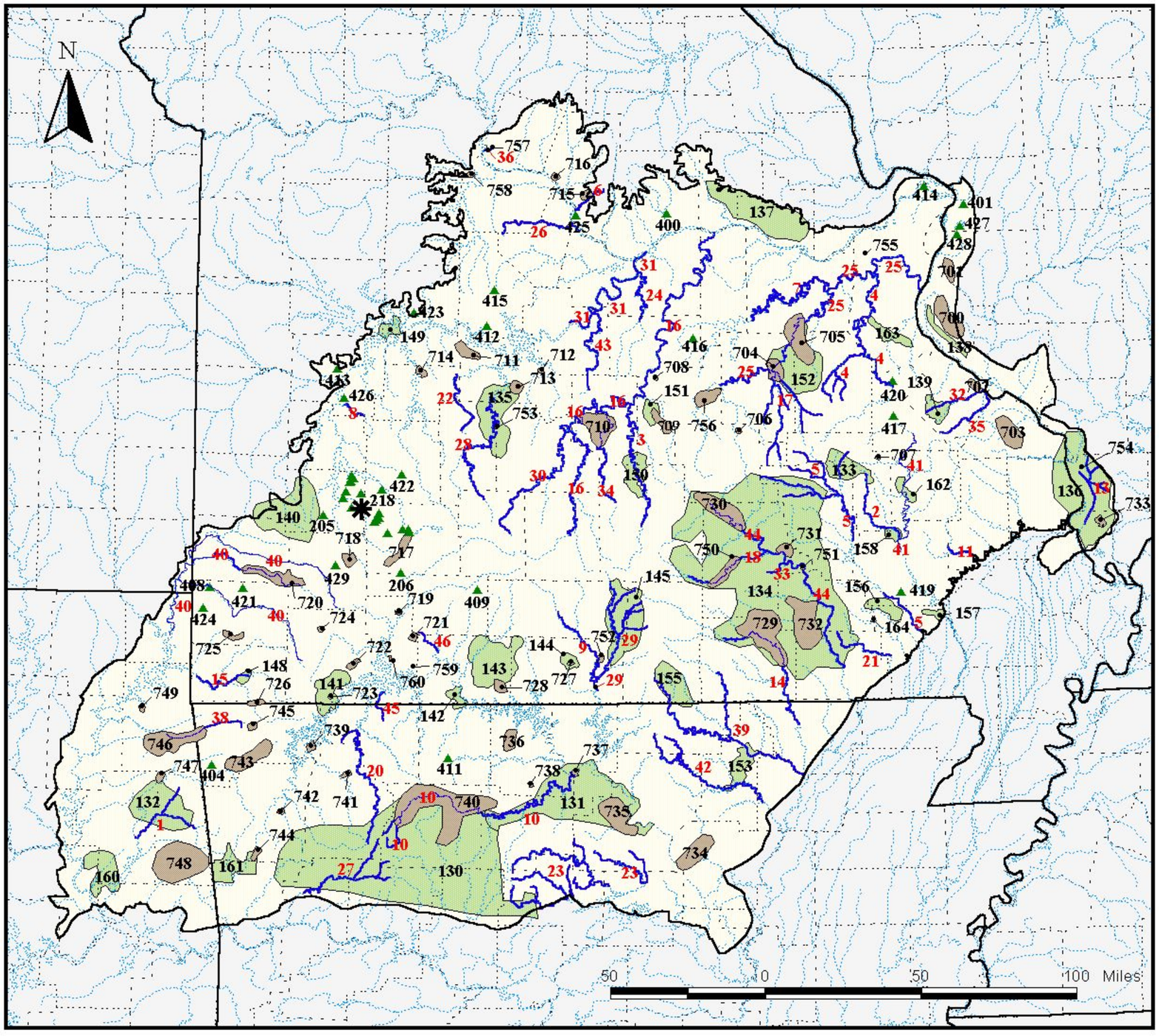


Figure 8. Ozarks Ecoregion Portfolio

Legend

- Aquatic Sites
- Small Scale Terrestrial Sites
- Karst Areas
- Terrestrial Landscape Areas
- Ozarks Ecoregion
- States
- Counties
- Streams

Portfolio Site Names

1 - Baron Fork
2 - Big Creek
3 - Big Piney River
4 - Big River
5 - Black River
6 - Bonne Femme Creek
7 - Bourbeuse River
8 - Brush Creek
9 - Bryant Creek
10 - Buffalo River
11 - Castor River
13 - Clear Creek
14 - Eleven Point River
15 - Elk River
16 - Gasconade River
17 - Huzzah/Courtois Creeks
18 - Jacks Fork River
20 - Kings River
21 - Little Black River
22 - Little Niangua River
23 - Little Red River
24 - Maries River
25 - Meramec River
26 - Moniteau Creek
27 - Mulberry River
28 - Niangua River
29 - North Fork White River
30 - Osage Fork Gasconade River
31 - Osage River
32 - River aux Vases
33 - Rocky Creek
34 - Roubidoux Creek
35 - Saline Creek
36 - Salt Creek
38 - Spavinaw Creek
39 - Spring River, AR
40 - Spring River
41 - St. Francis River
42 - Strawberry River
43 - Tavern Creek
44 - River
45 - Indian Creek
46 - Bear Creek
130 - Boston Mountains
131 - Sylamore
132 - Cookson Hills
133 - St. Francois Mtns
134 - Current River LCA
135 - Western Ozarks Savanna
136 - LaRue/Trail of Tears
137 - Central Missouri River Hills
138 - Fults Hill Prairie Complex
139 - Pickle Creek Complex
140 - Lamar LCA
141 - Roaring River
142 - Drury-Mincy
143 - Ava Glades
144 - Caney Hills
145 - North Fork Hills
148 - Big Sugar Creek
149 - Truman Savanna
150 - Big Piney Hills
151 - Kaintuck Hollow
152 - Meramec Hills
153 - Harold Alexander
155 - White Ranch
156 - Poplar Bluff Pinery
157 - Mud Creek
158 - Mudlick Mountain
160 - Cherokee-Gruber
161 - Garret Hollow
162 - Rock Pile Mountain
163 - Jefferson County Glades
164 - Pump Hollow
205 - Greenfield Glade
206 - Wilson's Creek
207 - Bois D'Arc*
208 - Two Horse Glade*
209 - Roberts Field*
210 - Clear Creek Glade*
211 - Phenix Glade*
212 - Rocky Barrens*
213 - Highway O Glade*
214 - Pertuche Glade*
215 - Corry Branch Glade*
216 - Corry Flatrocks*
217 - Rice Glade*
218 - Eudora Glade
219 - Maze Creek Powerline*
220 - Carmack Branch Glade*
221 - Maze Creek*
222 - Bona Glade*
223 - Flint Hill Glades*
400 - Aux Vasse Glade
401 - Poag Railroad Prairie
404 - Lindsey Prairie
408 - Wildcat Glade Complex
409 - Murphy Pond
410 - Hampton Church Sinks*
411 - Baker Prairie
412 - Little Proctor Creek Fen
413 - Lichen Glade
414 - Pelican Island
415 - Hite Prairie
416 - Ash Pond
417 - St. Joe
419 - Otter Creek Ponds
420 - Coonville Creek
421 - Tree Farm Prairie
422 - LaPetite Gemme Prairie
423 - Rockhill Prairie
424 - Warren Prairie
425 - Bonne Femme Hill
426 - Buzzards Bluff
427 - Horseshoe Lake
428 - Fairmont City
429 - Mount Vernon Prairie
700 - Renault Karst
701 - Columbia Karst
702 - Ste. Genevieve Karst
703 - Perryville Karst
704 - Onondaga Karst
705 - Meramec Karst
706 - Short Bend Karst
707 - Pilot Knob Mine
708 - Cave Ridge Karst
709 - Kaintuck Karst
710 - Waynesville Karst
711 - Climax Springs Karst
712 - Ozark Caverns
713 - Ha Ha Tonka Karst
714 - Cross Timbers Karst
715 - Pierpont Karst
716 - Lewis & Clark Karst
717 - Fantastic Caverns
718 - Paris Springs Karst
719 - Crane Creek Karst
720 - Center Creek Karst
721 - Stutts Karst
722 - Hub City Karst
723 - Radium Spring Karst
724 - Little Flat Creek Karst
725 - Neosho Karst
726 - Bella Vista Karst
727 - Caney Mountain Karst
728 - Tumbling Creek Karst
729 - Eleven Point Karst
730 - Upper Current Karst
731 - Powder Mill Karst
732 - Big Spring Karst
733 - Unimin Mines
734 - Batesville Karst
735 - Blanchard Springs Karst
736 - Dodd City Karst
737 - Buffalo City Karst
738 - Freck Karst
739 - War Eagle Karst
740 - Buffalo River Karst
741 - Withrow Springs Karst
742 - Black Oak Karst
743 - Cave Springs Karst
744 - Devils Den Karst
745 - Bentonville Karst
746 - Spavinaw Creek Karst
747 - Winset Hollow Karst
748 - Stilwell Karst
749 - Jay Karst
750 - Jacks Fork Karst
751 - Beal Karst
752 - Bryant Creek Karst
753 - Coffin Cave CA
754 - LaRue Pine Hills RNA Spring
755 - Rockwoods Spring
756 - Meramec Spring
757 - Salt Spring
758 - Blackwater Spring
759 - Marvel Cave
760 - Bearden Hollow Karst

* = Small scale terrestrial sites too close to identify individually on the map in the starred area.

LCA= Landscape Conservation Area
CA= Conservation Area
RNA= Research Natural Area

Map Created By: The Nature Conservancy, Missouri Field Office.

The Nature Conservancy
SAVING THE LAST GREAT PLACES ON EARTH

8. Threats

In the modern landscape, most areas of biological significance are impacted by factors which have the potential to irreversibly degrade their condition or viability. These factors, termed threats, can be conceptually divided into a *stress* that directly impacts a conservation target and one or more *sources*, which generate that stress. An example would be a stream system with one or more priority biological targets which is being degraded by an influx of sediments. In this case, the stress is sedimentation, and the sources of the stress may be a combination of intensive grazing directly in stream corridors and improperly configured row crop agriculture – two separate sources contributing to a common stress. Similarly, a single source may contribute to multiple stresses. An example of this would be development of confined animal production facilities in a priority area, which would contribute to the stresses of both habitat fragmentation and increased runoff and pollution in a watershed.

For each portfolio site in the region, including aquatic, landscape, small-scale terrestrial, and karst, a threat profile was developed by enumerating the principal stresses and primary sources of these stresses. For each stress at a site these sources were usually ranked in three categories: scope, severity, and irreversibility. These data were then combined into a series of overall threat rankings, resulting in a comprehensive threats analysis for Ozarks ecoregional sites (TNC 2000a). The principal threats to each ecoregional portfolio site with a threat rank of high or very high are included in Appendix 4.

The Ozarks ecoregion is a cohesive unit, with region-wide commonalties among each of several factors, including biological and physical environments, human cultural history, and contemporary societal patterns. Because of this cohesiveness, many of the globally significant ecological sites identified in this ecoregional assessment are afflicted by a common suite of threats, as summarized below.

Aquatic Sites

Four common stresses impact virtually all of the aquatic portfolio sites throughout the Ozarks:

- Hydrological alteration (primary sources: dams and reservoirs, urban development, grazing practices, watershed development).
- Sedimentation (primary sources: grazing practices, conversion to agriculture, road construction/maintenance practices).
- Nutrient loading (primary sources: grazing practices, intensive animal production facilities, septic discharge, recreational activities).
- Habitat destruction (primary sources: grazing practices, agricultural conversion, mining, residential development, road construction/maintenance practices).

Karst Areas

Three principal stresses occur among a majority of karst sites in the ecoregion:

- Subsurface habitat disturbance (primary sources: recreational misuse).
- Sedimentation/nutrient loading (primary sources: agricultural conversion, forestry practices, wastewater influx).
- Habitat destruction of critical surface lands (primary sources: residential/commercial development, conversion to agriculture, forestry practices).

Terrestrial Landscape Areas

Three principal stresses are frequent in large scale terrestrial sites throughout the ecoregion:

- Altered fire regimes (primary sources: fire suppression, forestry practices).
- Habitat destruction/conversion (primary sources: conversion to agriculture/silviculture, grazing conversion, residential development).
- Habitat fragmentation (primary sources: grazing conversion, primary and secondary home development).

Small Scale Terrestrial Sites

Four principal stresses occur among small scale terrestrial sites:

- Habitat destruction/conversion (primary sources: conversion to agriculture, rural residential development, recreational use).
- Habitat fragmentation (primary sources: rural residential development, conversion to agriculture, grazing practices).
- Altered fire regimes (primary sources: rural residential development, resource agency limitations).
- Altered composition and structure (primary sources: invasive/alien species, grazing practices).

Identification of principle common threats for suites of sites across an ecoregion provides a basis for developing and implementing strategies to address multi-site threats in the most effective manner. Within the Ozarks ecoregion, priority multi-site threats to be addressed include the need for more application of fire in critical areas, greater emphasis on planned infrastructure and residential development, particularly from a watershed perspective, and better interaction with forestry, ranching and agricultural constituencies in the development and application of conservation-appropriate production practices.

9. Data Sources and Information Management

The Ozarks Ecoregional Assessment was primarily a GIS-based effort utilizing base map data for states, counties, urban areas, roads, lakes and rivers, conservation ownerships, and target occurrence data from State Natural Heritage programs. Heritage data were supplemented with tabular data for aquatic and karst species from a variety of data sources. These hard data were further supplemented through the use of experts from Natural Heritage programs, universities and agency partners to provide information on the locations, quality, and viability of target occurrences and sites.

Map data were derived from a variety of sources. All map data was transformed into a common map projection of Universal Transverse Mercator (UTM) Zone 15 NAD 83. While not technically the ideal map projection for the Ozarks assessment, this was the most commonly used projection among agency planning partners and best facilitated data exchange among the multi-state, multi-agency core team. Basic base map data such as states, counties, highways, railroads, and populated places was obtained from ESRI Data & Maps software media (1998). Stream coverage was obtained from the 1998 US EPA Reach File 1 (RF1) for the Conterminous United States. Watershed boundaries were obtained from the 1998 US Geological Survey Hydrologic Unit Boundaries of the Conterminous United States. Land Cover was obtained from the US Geological Survey National Land Cover Characterization Project. State coverages were stitched together and re-projected for this assessment by the Missouri Resource Assessment Project (MoRAP). Protected ownership coverage was assembled from: US Fish & Wildlife Service GAP Analysis projects for Missouri, Oklahoma, and Arkansas; ESRI Data & Maps Federal lands coverage; and data from queries of individual state agency and TNC GIS staff ownership files. The Ozarks Ecoregional boundary was obtained from USDA Forest Service. Subsection boundaries were then modified by core team members from Missouri and Arkansas Natural Heritage Program staff to reflect a finer scale of resolution within the ecoregion.

The following State Natural Heritage programs provided species and community occurrence data for the Ozarks Ecoregional Assessment (January 2000 data): Missouri Natural Heritage Database, Arkansas Natural Heritage Inventory, Oklahoma Natural Heritage Inventory, Kansas Natural Heritage Inventory, and Illinois Natural Heritage Database. Species and community Element Occurrence Records (EOR's) were imported into Arc-View as point data and filtered as follows: general, minute, historic, and extirpated EOR's were removed and saved as reference data; all EOR's with last observed dates greater than twenty years (prior to 1980) were removed and saved as reference data; species EOR's for all non-target species were removed; Ozarks Assessment species target attributes (Global Rank, Target Class, and Habitat Code) were added to species EOR's; and all natural community EOR's were crosswalked into the Ozarks Assessment community target associations.

Tabular data for aquatic and karst species distributions were assembled from a variety of sources. Aquatics data were assembled into a table of target aquatic species occurrences by eight digit watershed within the ecoregion. Data from the USDA Forest Service Ozarks-Ouachita Highlands Assessment (1999), MoRAP Missouri Aquatic Gap Project, and a variety of species experts and publications were used to assemble the table. Collections records, published assessments, and many expert opinions were then used to develop viability ranks for each watershed occurrence record. Occurrences not seen since 1980, and occurrences resulting from bait or fisheries stocking introductions were deemed not viable. Additional watershed viability information was obtained from spatial analysis of related geographic data and from the EPA Index of Watershed Indicators with emphasis on water quality metrics.

Karst data for target species distributions were assembled from the Missouri Biospeleological Database (Missouri Department of Conservation), Arkansas and Oklahoma Karst Initiative Database (The Nature Conservancy), the Subterranean Amphipod Database (Old Dominion University), and numerous reports and communications with experts in particular species groups. These data were used to assemble

distribution tables and target richness metrics for sites. Hard data on karst species viability and distributions were problematic to assemble for several reasons. Few agency partners maintain cave location information for legal and data protection reasons, many karst species are cryptic and incompletely inventoried, and State Natural Heritage programs are inconsistent with regard to which species are tracked. Expert opinion and model data for cave and spring recharge areas was generously provided by Ozark Underground Laboratory and the Missouri Department of Natural Resources. A combination of multi-site aggregation and recharge area mapping was used to transform karst point sites into karst portfolio areas, adopting the concept of presumptive karst habitat, which assumes that caves and springs are essentially sample points for a larger subterranean area of karst aquatic species occurrences.

Portfolio data were recorded as shape files in Arc-View: Selected RF1 reaches were used to represent portfolio streams; polygon coverages were created for terrestrial landscape and karst areas; and a point coverage created to represent small scale terrestrial sites. This data set of shape files continues to be maintained by the assessment data manager but will likely be transferred to a Conservancy GIS resource office in the future.

Tabular data to support the assessment process was assembled in a series of Excel workbooks for target lists, community associations data, target occurrence and viability data, and site threats data. An Access table was created to track and report target capture information by portfolio site. A clear next step for the tabular data is to move this information into the new Conservation Planning Tool (CPT). Given the size and complexity of this data conversion task, it is likely that a multi-state team approach will again be needed to accomplish this conversion.

Meta data for portfolio coverages and tabular data sets created for this project are found on the data CD for this assessment. The data CD is for internal planning purposes only and contains proprietary and unpublished data from a number of individuals, agencies, and state Natural Heritage programs. Distribution of this data must be evaluated on a case-by case basis and data distributed and/or published only as defined in the meta data on the CD. Subsequent iterations of the Ozarks Ecoregional Assessment will likely have more robust data sets available for target occurrences across state lines as multi-state and multi-agency partnerships continue to develop better information related to karst and aquatic species and habitats.

10. Future Needs

This assessment provides a blueprint to guide biodiversity conservation in the Ozarks ecoregion. It should be regarded as part of a dynamic process of successively more refined iterations as our knowledge of both applied conservation biology and the landscape and biota of the Ozarks continue to develop.

Among key areas to be considered or improved in future iterations of this assessment are the following:

Targets

- Implement a method to track capture of secondary targets, or as an alternative, devising a method of tracking imputed capture of secondary targets through surrogates.
- Continue to aggressively develop refined information for Ozark biota, particularly among cryptic or poorly known organismal groups, and to expand target list accordingly about potential.
- Develop better cave EO data, especially for the Northern Border Karst Subsection, where current data was insufficient to meet selection goal of the five best caves in the subsection.

Occurrences

- Develop better data regarding occurrence, range-wide distribution, and EO ranking data for unranked species targets.
- Develop a consistent data set for secondary target occurrences for the Ozark portions of all states within the ecoregion.

Goals

- Use aquatic gap analysis community classification to test completeness of aquatic community capture.
- Develop and implement a method to identify most viable candidate restoration sites for matrix community targets with unfulfilled conservation goals.
- Develop analysis to identify and prioritize species reintroduction targets and appropriate sites.
- Create unified ecological systems goals incorporating terrestrial, karst, and aquatic systems.

Portfolio

- Fully integrate ecoregional portfolio selections with portfolio data from adjacent ecoregions.
- Address divergence in aquatic portfolio selections between this assessment and the supra-ecoregional assessments underway in the Missouri ands Upper Mississippi rivers.

Data Management

- Transition all data to the Conservancy's new ecoregional data standard, the Conservation Planning Tool (CPT).

11. Acknowledgments

This assessment would not have been possible without the generous assistance of many people who gave freely of their time and expertise. Among those who stand out in this respect, the assessment team would like to thank the following people:

Bruce Allen, Missouri Botanical Garden
Tom Aley, Ozark Underground Lab
Mike Arduser, Missouri Department of Conservation
Chris Barnhart, Southwest Missouri State University
Arthur Brown, University of Arkansas
Sue Brunderman, Missouri Department of Conservation
William Buck, New York Botanical Garden
Brooks Burr, Southern Illinois University
Dorothy Butler, Missouri Department of Conservation
Richard Campanella, Tulane University Center for Bioenvironmental Research
Steve Chaplin, formerly TNC Midwestern Resource Office
Beth Churchwell, formerly TNC Missouri
Nancy DeLamar, TNC Arkansas
Judy Dempsey, Illinois Nature Preserves Commission
Dave Diamond, Missouri Resource Assessment Partnership
Bill Elliott, Missouri Department of Conservation
Don Faber-Langendoen, Association for Biodiversity Information
Dennis Figg, Missouri Department of Conservation
Craig Freeman, Kansas Biological Survey
Mike Fuhr, TNC Arkansas
Dave Goss, TNC Arkansas
Geo Graening, formerly TNC Arkansas
Jennifer Hall, TNC Midwestern Resource Office
Richard Harris, New York Botanical Garden
Susan Harris, TNC Missouri
Jim Herkert, TNC Illinois
Justin Hills, TNC Missouri
Bruce Hoagland, Oklahoma Biological Survey
Max Hutchinson, formerly TNC Illinois
Jerry Lewis, Southern Illinois University
Ken McCarty, Missouri Department of Natural Resources
Phillip Moss, Ozark Underground Laboratories
Paul Nelson, Mark Twain National Forest
Larry Nolan, TNC Missouri
Ron Oesch, TNC Missouri
Bill Pell, Ouachita National Forest
Bill Pfleiger, Missouri Department of Conservation
Mark Phipps, Illinois Department of Natural Resources
Jay Pruett, TNC Oklahoma
Paul Redfearn, Southwest Missouri State University
Lynn Robbins, Southwest Missouri State University
Mark Robbins, University of Kansas
Andrew Roberts, US Fish & Wildlife Service
Barbara Schaal, Washington University
Mike Shanta, Mark Twain National Forest

Mike Skinner, Missouri Department of Conservation
Scott Sowa, Missouri Resource Assessment Partnership
Roger Still, Audubon Missouri
Tim Tear, TNC New York (formerly TNC Illinois)
Diane Tecic, Illinois Department of Natural Resources
Alan Templeton, Washington University
Steve Timme, Pittsburg State University
James Trager, Missouri Botanical Garden
Alan Weakley, Association for Biodiversity Information
Debbie Scott-Newman, Illinois Nature Preserves Commission
Jim D. Wilson, Missouri Department of Conservation
Michelle Wilson, TNC Missouri
George Yatskievych, Missouri Department of Conservation

12. Literature Cited

Allen, R.T. 1990. Insect endemism in the Interior Highlands of North America. Florida Entomologist 73: 539-569.

Culver, et al. 2003. The North American obligate cave fauna: regional patterns. Biodiversity and Conservation 12: 441-468.

Delcourt, H.R. et al. 1986. Vegetational history of the cedar glades regions of Tennessee, Kentucky and Missouri during the past 30,000 years. ASB Bulletin 33: 128-137.

ESRI Data and Maps [digital data]. 1998. Environmental Systems Research Institute, Inc. Four discs.

Groves, C. et al. 2000. Designing a geography of hope, Volume I, second edition. Arlington, VA: The Nature Conservancy. 82 pp.

Guyette, R.P. and B.E. Cutter. 1991. Tree ring analysis of fire history in a post oak savanna in the Missouri Ozarks. Natural Areas Journal 11: 93-99.

Harris, R.C. 1989. A sketch of the family Pyrenulaceae (Melanommatales) in Eastern North America. Memoirs of the New York Botanical Garden 49: 74-107.

Harris, R.C. and D. Ladd. 2003. Lichens of the Ozarks: Floristics and Implications for Biodiversity Conservation. The New York Botanical Garden and The Nature Conservancy. http://www.nybg.org/bsci/lichens/ozarks/

Hebrank, A.W. 1989. Geologic natural features classification system for Missouri. Natural Areas Journal 9: 106-116.

Keys, J.E. et al. 1995. Ecological units of the eastern United States: first approximation. Atlanta, GA: USDA Forest Service. Map + 83 pp.

Ladd, D. 1991. Reexamination of the role of fire in Missouri oak woodlands. Charleston, IL: Proceedings of the Oak Woods Management Workshop: 67-80.

The Nature Conservancy, Ozarks Ecoregional Assessment Team. 2000a. Threat Assessment for Ozarks Ecoregional sites. St. Louis, MO. [CD ROM].

The Nature Conservancy, Osage Plains/Flint Hills Prairie Ecoregional Planning Team. 2000b. Ecoregional conservation in the Osage Plains/Flint Hills Prairie. The Nature Conservancy, Midwestern Resource Office, Minneapolis, MN. 48 pp.

The Nature Conservancy. 1999. International classification of ecological communities: terrestrial vegetation of the United States, Ozarks target review subset. Chapel Hill, NC: 101 pp.

The Nature Conservancy. 1996. Conservation by design: a framework for mission success. Arlington, VA: The Nature Conservancy. 16 pp.

The Nature Conservancy. 1993. Lower Ozark project ecological overview. St. Louis, MO. 42 pp.

Nelson, P.W. 1985. The terrestrial natural communities of Missouri. Jefferson City, MO: Missouri Natural Areas Committee. ix + 197 pp.

Nelson, P. and D. Ladd. 1980. Preliminary report on the identification, distribution, and classification of Missouri glades. Proc. 7th North American Prairie Conference: 59-76.

Nigh, T.A. and W.A. Schroeder. 2002. Atlas of Missouri Ecoregions. Jefferson City, MO: Missouri Dept. of Conservation.

Ostlie, W.R. and J.L. Haferman. 1999. Ecoregional conservation in the Great Plains. Proceedings of the North American Prairie Conference 16: 136-148.

Pfleiger, W.L. 1989. Aquatic classification system for Missouri. Jefferson City, MO: Missouri Dept. of Conservation Aquatic Series No. 19. Vi + 69 pp.

Schroeder, W.A. 1981. Presettlement prairie of Missouri. Jefferson City, MO: Missouri Dept. of Conservation Natural History Series No. 2. 37 pp.

United States Environmental Protection Agency. 2002. Index of watershed indicators. http://www.epa.gov/iwi/states.

U.S. Department of Agriculture, Forest Service. 1999. Ozark-Ouachita Highlands Assessment. Asheville, NC: U.S. Department of Agriculture, Forest Service Southern Research Station General Technical Reports: SRS-31 Summary report (56 pp.); SRS-32 Air quality (57 pp.); SRS-33 Aquatic conditions (317 pp.); SRS-34 Social and economic conditions (299 pp.); SRS-35 Terrestrial vegetation and wildlife (201 pp.).

Vineyard, J.D. and G.L. Feder. 1974. Springs of Missouri. Rolla, MO: Missouri Geological Survey and Water Resources. *vi* + 266 pp.

Weitzell, et al. 2003. Conservation priorities for fresh water biodiversity in the Upper Mississippi River basin. Nature Serve and The Nature Conservancy. 90 pp.

Ozarks Ecoregional Conservation Assessment

Appendices

The Nature Conservancy, Ozarks Ecoregional Assessment Team

Table of Contents

Appendix 1A. Species Targets

This appendix provides a complete list of all species targets identified as being of conservation significance for the Ozarks ecoregion (see Targets section of report). Data for each species target is presented in nine columns, as explained below.

Column 1. Gelcode - Indicates the Global Element Code for the species, which is a unique identifier used by NatureServe and Heritage Programs. This code provides a convenient means of tracking data associated with species, especially for taxa with nomenclatural confusion.

Column 2. Primary - Identifies whether the species is a primary or secondary target, as explained in the targets section of the text.

Column 3. System - Categorizes the general system type with which the species is associated: terrestrial, aquatic (= surface aquatic), or karst.

Column 4. Scientific - Provides the scientific name for the species, as generally used by NatureServe and state Natural Heritage Programs.

Column 5. Common - Provides a generally used common name for the species; note that some taxa may have many other common names besides the one given here.

Column 6. G-rank - Provides the global rank of the species, on a scale ranging from G1 (critically imperiled from a global perspective) to G5 (demonstrably secure). Multiple G-ranks for a species, such as G4G5, indicate uncertainty about the exact global range but assurance that it falls within the range of the two numbers. A 'Q' associated with a global rank implies uncertainty about the taxonomic status of the organism, and is typically associated with subspecific taxa. A 'T' given as part of a global rank, such as G5T3 indicates a subspecific taxon differing from the type species. In this example the typical species has a global rank of G5, but the subspecific taxon has a much higher priority global rank of G3.

Column 7. Habitat - Provides a general habitat category for the organism according to the following designations.

Terrestrial species:
BF – bottomland forest
BP – bottomland prairie
BS – bottomland savanna/woodland
FS – fens and seeps
GG – glade
HG – habitat generalist
RO – rock outcrop
SH – shrubland
SP – sinkhole pond
UF – upland mesic forest
UP – upland prairie
US – upland savanna/woodland
WL – wetland

Aquatic species:
AQ – unknown habitat affinity; data lacking
AQG – habitat generalist
AQH – headwaters to small rivers
AQR – small to large rivers
AQS – obligate to springs and spring runs

Karst species:
CV – non-aquatic cave habitats
AQC – subterranean aquatics

Column 8. Target Class - Identifies the priority conservation class of the target:

OZ - Ozark Endemic: Species whose entire global range is restricted to the Ozarks ecoregion.

MOD - Modal: Species which may have broad geographic ranges, but for which a majority of the total global population occurs within the Ozarks.

R - Globally Rare: Species with assigned G-Ranks of G1-G3.

DECL - Declining: Species that are currently experiencing significant range-wide declines.

DJ - Highly Disjunct: Species with broad geographic distributions in regions remote from midcontinental North America, but for which the Ozark populations represent outliers typically several hundred miles disjunct from the main range of the species.

Column 9. Taxatype - Identifies the organismal group of the species, i.e. amphibian, fish, etc.

Appendix 1A. Species Targets by Taxa Type

Gelcode	Primary	System	Scientific Name	Common Name	G-rank	Habitat	Target Class
Amphibian							
AAAAA01010	Primary	Terrestrial	AMBYSTOMA ANNULATUM	RINGED SALAMANDER	G4	UF	OZ
AAABB01022	Primary	Terrestrial	BUFO AMERICANUS CHARLESMITHI	DWARF AMERICAN TOAD	G5T5	HG	OZ
AAAAC01011	Secondary	Aquatic	CRYTOBRANCHUS ALLEGANIENSIS ALLEGANIENSIS	ALLEGANY HELLBENDER	G4T4	AQR	DJ
AAAAC01012	Primary	Aquatic	CRYTOBRANCHUS ALLEGANIENSIS BISHOPI	OZARK HELLBENDER	G4T3	AQR	OZ
AAAAD05043	Primary	Karst	EURYCEA LONGICAUDA MELANOPLEURA	DARK-SIDED SALAMANDER	G5T4	CV	OZ
AAAAD05061	Primary	Terrestrial	EURYCEA MULTIPLICATA GRISEOGASTER	GRAYBELLY SALAMANDER	G4T4	WL	OZ
AAAAD05060	Primary	Karst	EURYCEA MULTIPLICATA MULTIPLICATA	MANY-RIBBED SALAMANDER	G4T4	CV	OZ
AAAAD05120	Primary	Terrestrial	EURYCEA TYNERENSIS	OKLAHOMA SALAMANDER	G3	WL	OZ
AAAAD08010	Secondary	Terrestrial	HEMIDACTYLIUM SCUTATUM	FOUR-TOED SALAMANDER	G5	WL	DJ
AAAAD12070	Primary	Terrestrial	PLETHODON ALBAGULA	WESTERN SLIMY SALAMANDER	G4	UF	OZ
AAAAD12380	Primary	Terrestrial	PLETHODON ANGUSTICLAVIUS	OZARK ZIGZAG SALAMANDER	G5T4	WL	OZ
AAAAD12160	Secondary	Terrestrial	PLETHODON SERRATUS	SOUTHERN REDBACK SALAMANDER	G5?	UF	DJ
AAABC05061	Secondary	Terrestrial	PSEUDACRIS STRECKERI ILLINOENSIS	ILLINOIS CHORUS FROG	G5T3	WL	R
AAABH01200	Secondary	Terrestrial	RANA SYLVATICA	WOOD FROG	G5	UF	DJ
AAABF02010	Secondary	Terrestrial	SPEA BOMBIFRONS	PLAINS SPADEFOOT	G5	UP	DJ
AAAAD16010	Primary	Karst	TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	CV	OZ
Bird							
ABNKC12040	Secondary	Terrestrial	ACCIPITER COOPERII	COOPER'S HAWK	G5	US	DECL
ABPBX91050	Secondary	Terrestrial	AIMOPHILA AESTIVALIS	BACHMAN'S SPARROW	G3	US	R
ABPBXA0030	Secondary	Terrestrial	AMMODRAMUS HENSLOWII	HENSLOW'S SPARROW	G4	UP	DECL
ABPBXA0020	Secondary	Terrestrial	AMMODRAMUS SAVANNARUM	GRASSHOPPER SPARROW	G5	UP	DECL
ABNTA07010	Primary	Terrestrial	CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	US	MOD
ABNTA07070	Primary	Terrestrial	CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	US	MOD
ABNRB02020	Secondary	Terrestrial	COCCYZUS AMERICANUS	YELLOW-BILLED CUCKOO	G5	UF	DECL
ABNLC21020	Secondary	Terrestrial	COLINUS VIRGINIANUS	NORTHERN BOBWHITE	G5	US	DECL
ABPAE32060	Primary	Terrestrial	CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	US	MOD
ABPBX03240	Secondary	Terrestrial	DENDROICA CERULEA	CERULEAN WARBLER	G4	BF	DECL
ABPBX03190	Secondary	Terrestrial	DENDROICA DISCOLOR	PRAIRIE WARBLER	G5	US	DECL
ABPBX03020	Secondary	Terrestrial	DENDROICA PENSYLVANICA	CHESTNUT-SIDED WARBLER	G5	US	DJ
ABPBX03100	Secondary	Terrestrial	DENDROICA VIRENS	BLACK-THROATED GREEN WARBLER	G5	US	DJ
ABNYF12020	Secondary	Terrestrial	DRYOCOPUS PILEATUS	PILEATED WOODPECKER	G5	UF	DECL
ABPAE33020	Secondary	Terrestrial	EMPIDONAX VIRESCENS	ACADIAN FLYCATCHER	G5	UF	DECL
ABPBX08010	Secondary	Terrestrial	HELMITHEROS VERMIVORUS	WORM-EATING WARBLER	G5	UF	DECL
ABPBJ19010	Primary	Terrestrial	HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	UF	MOD

Gelcode	Primary	System	Scientific Name	Common Name	G-rank	Habitat	Target Class
ABPBXB9070	Secondary	Terrestrial	ICTERUS SPURIUS	ORCHARD ORIOLE	G5	US	DECL
ABPBR01030	Secondary	Terrestrial	LANIUS LUDOVICIANUS MIGRANS	LOGGERHEAD SHRIKE	G5T3Q	US	R
ABPBX09010	Secondary	Terrestrial	LIMNOTHLYPIS SWAINSONII	SWAINSON'S WARBLER	G4	BF	DECL
ABPBX05010	Primary	Terrestrial	MNIOTILTA VARIA	BLACK-AND-WHITE WARBLER	G5	UF	MOD
ABPBX11010	Secondary	Terrestrial	OPORORNIS FORMOSUS	KENTUCKY WARBLER	G5	UF	DECL
ABPBX64060	Secondary	Terrestrial	PASSERINA CIRIS	PAINTED BUNTING	G5	SH	DECL
ABPBX45030	Primary	Terrestrial	PIRANGA RUBRA	SUMMER TANAGER	G5	US	MOD
ABPBX10010	Secondary	Terrestrial	SEIURUS AUROCAPILLUS	OVENBIRD	G5	UF	DECL
ABPBX10030	Primary	Terrestrial	SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	BF	MOD
ABPA201020	Primary	Terrestrial	SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	UF	MOD
ABPBX94050	Secondary	Terrestrial	SPIZELLA PUSILLA	FIELD SPARROW	G5	US	DECL
ABNNM08102	Primary	Terrestrial	STERNA ANTILLARUM ATHALASSOS	INTERIOR LEAST TERN	G4T2Q	WL	R
ABPBG07010	Primary	Terrestrial	THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	SH	MOD
ABNLC13010	Secondary	Terrestrial	TYMPANUCHUS CUPIDO	GREATER PRAIRIE CHICKEN	G4	UP	DECL
ABPBX01020	Secondary	Terrestrial	VERMIVORA PINUS	BLUE-WINGED WARBLER	G5	SH	DECL
ABPBW01110	Secondary	Terrestrial	VIREO BELLII	BELL'S VIREO	G5	SH	DECL
ABPBX16010	Secondary	Terrestrial	WILSONIA CITRINA	HOODED WARBLER	G5	UF	DECL
Fish							
AFCAA01020	Secondary	Aquatic	ACIPENSER FULVESCENS	LAKE STURGEON	G3	AQR	R
AFCQB06030	Primary	Aquatic	AMBLOPLITES CONSTELLATUS	OZARK BASS	G5	AQH	OZ
AFCLA01010	Primary	Karst	AMBLYOPSIS ROSAE	OZARK CAVEFISH	G2G3	AQC	OZ
AFCQC01040	Secondary	Aquatic	AMMOCRYPTA CLARA	WESTERN SAND DARTER	G3	AQR	R
AFCJB03020	Primary	Aquatic	CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	AQG	MOD
AFC4E02070	Primary	Aquatic	COTTUS CAROLINAE	BANDED SCULPIN	G5	AQG	MOD
AFC4E02250	Primary	Aquatic	COTTUS HYPSELURUS	OZARK SCULPIN	G4	AQH	OZ
AFCQC01010	Secondary	Aquatic	CRYSTALLARIA ASPRELLA	CRYSTAL DARTER	G3	AQR	R
AFCJB49060	Primary	Aquatic	CYPRINELLA CAMURA (NOTROPIS)	BLUNTFACE SHINER	G5	AQG	MOD
AFCJB49090	Primary	Aquatic	CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	AQR	MOD
AFCJB50030	Primary	Aquatic	ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	G3G4Q	AQH	OZ
AFCJB50050	Primary	Aquatic	ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	AQR	MOD
AFCQC02062	Primary	Aquatic	ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	AQG	MOD
AFCQC02062	Primary	Aquatic	ETHEOSTOMA BLENNIOIDES NEWMANII (AR RACE)	GREENSIDE DARTER	G5T4	AQG	MOD
AFCQC02C70	Primary	Aquatic	ETHEOSTOMA BURRI	BROOK DARTER	G4	AQH	OZ
AFCQC02090	Primary	Aquatic	ETHEOSTOMA CAERULEUM (LITTLE RED SUBSP.)	RAINBOW DARTER	G5T3?	AQR	OZ
AFCQC02090	Primary	Aquatic	ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	AQR	OZ
AFCQC02170	Secondary	Aquatic	ETHEOSTOMA CRAGINI	ARKANSAS DARTER	G3	AQG	R
AFCQC02230	Primary	Aquatic	ETHEOSTOMA EUZONUM ERIZONUM	CURRENT RIVER SADDLED DARTER	G4T2?	AQG	OZ

Gelcode	Primary	System	Scientific Name	Common Name	G-rank	Habitat	Target Class
AFCQC02230	Primary	Aquatic	ETHEOSTOMA EUZONUM EUZONUM	ARKANSAS SADDLED DARTER	G3G4	AQG	OZ
AFCQC02250	Primary	Aquatic	ETHEOSTOMA FLABELLARE (WHITE RIVER FORM)	WHITE RIVER FANTAIL DARTER	G5	AQG	OZ
AFCQC02C50	Primary	Aquatic	ETHEOSTOMA FRAGI	STRAWBERRY RIVER DARTER	G4	AQH	OZ
AFCQC02360	Primary	Aquatic	ETHEOSTOMA JULIAE	YOKE DARTER	G4?	AQR	OZ
AFCQC02450	Primary	Aquatic	ETHEOSTOMA MICROPERCA OZARKANUS	OZARK LEAST DARTER	G5T?	AQH	OZ
AFCQC02460	Primary	Aquatic	ETHEOSTOMA MOOREI	YELLOWCHEEK DARTER	G1	AQH	OZ
AFCQC02480	Primary	Aquatic	ETHEOSTOMA NIANGUAE	NIANGUA DARTER	G2	AQH	OZ
AFCQC02610	Primary	Aquatic	ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	AQH	OZ
AFCQC02780	Primary	Aquatic	ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	AQR	OZ
AFCQC02C60	Primary	Aquatic	ETHEOSTOMA UNIPORUM	CURRENT ORANGETHROAT DARTER	G4	AQH	OZ
AFCQC02870	Primary	Aquatic	ETHEOSTOMA ZONALE	BANDED DARTER	G5	AQG	MOD
AFCQC02870	Primary	Aquatic	ETHEOSTOMA ZONALE (BLACK RIVER RACE)	BLACK RIVER BANDED DARTER	G5T?	AQR	OZ
AFCNB04020	Primary	Aquatic	FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	AQG	MOD
AFCJB51020	Primary	Aquatic	LUXILUS CARDINALIS (NOTROPIS)	CARDINAL SHINER	G4?	AQR	OZ
AFCJB51070	Primary	Aquatic	LUXILUS PILSBRYI (NOTROPIS)	DUSKYSTRIPE SHINER	G5?	AQH	OZ
AFCJB51080	Primary	Aquatic	LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	AQH	MOD
AFCJC10040	Primary	Aquatic	MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	AQR	MOD
AFCJB26010	Primary	Aquatic	NOCOMIS ASPER	REDSPOT CHUB	G3G4?	AQG	MOD
AFCJB28500	Primary	Aquatic	NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	AQR	MOD
AFCJB28680	Primary	Aquatic	NOTROPIS NUBILUS	OZARK MINNOW	G5?	AQH	MOD
AFCJB28710	Primary	Aquatic	NOTROPIS OZARCANUS	OZARK SHINER	G3	AQR	OZ
AFCJB28960	Primary	Aquatic	NOTROPIS TOPEKA	TOPEKA SHINER	G2	AQH	R
AFCKA02010	Primary	Aquatic	NOTURUS ALBATER	OZARK MADTOM	G4?	AQR	OZ
AFCKAD2250	Primary	Aquatic	NOTURUS EXILIS	SLENDER MADTOM	G5	AQG	MOD
AFCKA02050	Primary	Aquatic	NOTURUS FLAVATER	CHECKERED MADTOM	G3G4	AQR	OZ
AFCKA02200	Primary	Aquatic	NOTURUS PLACIDUS	NEOSHO MADTOM	G2	AQR	OZ
AFCQC04080	Primary	Aquatic	PERCINA CYMATOTAENIA	BLUESTRIPE DARTER	G2	AQG	OZ
AFCQC04090	Primary	Aquatic	PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	AQR	OZ
AFCQC04150	Primary	Aquatic	PERCINA NASUTA	LONGNOSE DARTER	G3	AQR	MOD
AFCQC04300	Secondary	Aquatic	PERCINA URANIDEA	STARGAZING DARTER	G3	AQR	R
AFCJB32032	Primary	Aquatic	PIMEPHALES TENELLUS PARVICEPS	EASTERN SLIM MINNOW	G5T2T3	AQR	MOD
AFCLA04010	Secondary	Karst	TYPHLICHTHYS SUBTERRANEUS	SOUTHERN CAVEFISH	G4	AQC	DJ

Gelcode	Primary	System	Scientific Name	Common Name	G-rank	Habitat	Target Class
Invertebrate-Amphipod							
ICMAL24010	Primary	Karst	ALLOCRANGONYX HUBRICHTI	CENTRAL MISSOURI CAVE AMPHIPOD	G1G3	AQC	OZ
--	Primary	Karst	BACTRURUS PSEUDOMUCRONATUS	CAVE AMPHIPOD	--	AQC	OZ
ICMAL10020	Primary	Karst	GAMMARUS ACHERONDYTES	ILLINIOS CAVE AMPHIPOD	G1G2	AQC	R
ICMAL05380	Primary	Karst	STYGOBROMUS BARRI	BARR'S CAVE AMPHIPOD	G2G3	AQC	OZ
ICMAL05410	Secondary	Karst	STYGOBROMUS CLANTONI	CLANTON'S CAVE AMPHIPOD	G2G4	AQC	R
ICMAL05540	Primary	Karst	STYGOBROMUS ONONDAGAENSIS	ONONDAGA CAVE AMPHIPOD	G1	AQC	OZ
ICMAL05280	Primary	Karst	STYGOBROMUS OZARKENSIS	OZARK CAVE AMPHIPOD	G3G4	AQC	OZ
ICMAL05610	Primary	Karst	STYGOBROMUS SUBTILIS	SUBTLE CAVE AMPHIPOD	G2	AQC	R
Invertebrate-Crayfish							
ICMAL07840	Primary	Karst	CAMBARUS ACULABRUM	TROGLOBITIC CRAYFISH	G1	AQC	OZ
ICMAL07080	Primary	Aquatic	CAMBARUS CAUSEYI	BOSTON MOUNTAINS CRAYFISH	G1	AQH	OZ
ICMAL07590	Primary	Aquatic	CAMBARUS HUBBSI	HUBB'S CRAYFISH	G5	AQH	OZ
ICMAL07210	Primary	Karst	CAMBARUS HUBRICHTI	SALEM CAVE CRAYFISH	G2	AQC	OZ
ICMAL07850	Primary	Aquatic	CAMBARUS MACULATUS	FRECKLED CRAYFISH	G4	AQH	OZ
ICMAL07220	Primary	Karst	CAMBARUS SETOSUS	BRISTLY CAVE CRAYFISH	G2	AQC	OZ
ICMAL07910	Primary	Karst	CAMBARUS SUBTERRANEUS	BLIND CAVE CRAYFISH	G1	AQC	OZ
ICMAL07150	Primary	Karst	CAMBARUS TARTARUS	OKLAHOMA CRAYFISH	G1	AQC	OZ
ICMAL07090	Primary	Karst	CAMBARUS ZOPHONASTES	HELL CREEK CAVE CRAYFISH	G1	AQC	OZ
ICMAL11180	Primary	Aquatic	ORCONECTES EUPUNCTUS	COLDWATER CRAYFISH	G2	AQH	OZ
ICMAL07850	Primary	Aquatic	ORCONECTES HARRISONII	BELTED CRAYFISH	G3	AQH	OZ
ICMAL11200	Primary	Aquatic	ORCONECTES HYLAS	WOODLAND CRAYFISH	G4	AQH	OZ
ICMAL11490	Primary	Aquatic	ORCONECTES LONGIDIGITUS	LONG-PINCERED CRAYFISH	G4	AQR	OZ
ICMAL11500	Primary	Aquatic	ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	AQG	MOD
ICMAL11510	Primary	Aquatic	ORCONECTES MACRUS	NEOSHO MIDGET CRAYFISH	G4	AQH	OZ
ICMAL11210	Primary	Aquatic	ORCONECTES MARCHANDI	MAMMOTH SPRING CRAYFISH	G2	AQH	OZ
ICMAL11220	Primary	Aquatic	ORCONECTES MEDIUS	SADDLEBACK CRAYFISH	G4	AQH	OZ
ICMAL11520	Primary	Aquatic	ORCONECTES MEEKI	MEEK'S CRAYFISH	G4?	AQH	OZ
ICMAL11240	Primary	Aquatic	ORCONECTES NEGLECTUS	RINGED CRAYFISH	G5	AQG	MOD
ICMAL11241	Primary	Aquatic	ORCONECTES NEGLECTUS CHAENODACTYLUS	GAPE-FINGERED RINGED CRAYFISH	G5T2	AQG	OZ
ICMAL11580	Primary	Aquatic	ORCONECTES OZARKAE	OZARK CRAYFISH	G4	AQG	OZ
ICMAL11250	Primary	Aquatic	ORCONECTES PERUNCUS	BIG CREEK CRAYFISH	G2	AQH	OZ
ICMAL11600	Primary	Aquatic	ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	AQG	OZ
ICMAL11260	Primary	Aquatic	ORCONECTES QUADRUNCUS	ST. FRANCIS CRAYFISH	G2	AQG	OZ
--	Primary	Karst	ORCONECTES STYGOCANEYI	CANEY MOUNTAIN CAVE CRAYFISH	G?	AQC	OZ
ICMAL11680	Primary	Aquatic	ORCONECTES WILLIAMSI	WILLIAMS' CRAYFISH	G2	AQS	OZ
ICMAL14710	Primary	Aquatic	PROCAMBARUS LIBERORUM	BURROWING CRAYFISH	G4	AQ	MOD

Gelcode	Primary	System	Scientific Name	Common Name	G-rank	Habitat	Target Class
Invertebrate-Insect							
IIPLE1L130	Primary	Aquatic	ACRONEURIA OZARKENSIS	A PERLID STONEFLY	G2	AQR	R
IITRI33010	Primary	Aquatic	AGAPETUS ARTESUS	ARTESIAN AGAPETUS CADDISFLY	G?	AQS	OZ
IITRI33030	Primary	Aquatic	AGAPETUS MEDICUS	ARKANSAS AGAPETUS CADDISFLY	G?	AQ	MOD
IIPLE01130	Primary	Aquatic	ALLOCAPNIA JEANAE	WINTER STONEFLY	G2	AQ	OZ
IIPLE01320	Primary	Aquatic	ALLOCAPNIA ORIBATA	WINTER STONEFLY	G1	AQ	OZ
IIPLE01220	Primary	Aquatic	ALLOCAPNIA OZARKANA	WINTER STONEFLY	G2	AQ	OZ
IILEP80120	Secondary	Terrestrial	AMBLYSCIRTES AESCULAPIUS	LACEWING ROADSIDE SKIPPER	G3G4	SH	R
IILEP80050	Primary	Terrestrial	AMBLYSCIRTES LINDA	LINDA'S ROADSIDE SKIPPER	G2G3	US	MOD
IIORT06010	Primary	Terrestrial	AMBLYTROPIDIA MYSTECA	GLADE GRASSHOPPER	G?	GG	OZ
IICLL04090	Primary	Karst	ARRHOPALITES CAROLYNAE	CAVE SPRINGTAIL	G2G3	CV	R
IICLL04040	Primary	Karst	ARRHOPALITES HIRTUS	CAVE SPRINGTAIL	G2	CV	R
IILEPH2020	Secondary	Terrestrial	CALEPHELIS BOREALIS	NORTHERN METALMARK	G3G4	WL	DJ
IILEPH206001	Secondary	Terrestrial	CALEPHELIS MUTICA	SWAMP METALMARK	G3G4	WL	DJ
IICOL43010	Primary	Terrestrial	CHAETOCNEMA ELONGATULA	LEAF BEETLE	G?		OZ
IILEP21030	Secondary	Terrestrial	COGIA OUTIS	OUTIS SKIPPER	G3G4	UP	R
IIEPH01010	Primary	Aquatic	DANNELLA PROVONSHAI (TIMPANOGA)	MAYFLY	G1	AQ	OZ
IILEPM9030	Secondary	Terrestrial	ENODIA CREOLA	CREOLE PEARLY-EYE	G3G4	SH	R
IITRI14010	Primary	Aquatic	GLYPHOPSYCHE MISSOURI	MISSOURI GLYPHOPSYCHE CADDISFLY	G1G3	AQS	OZ
IIODO08170	Primary	Aquatic	GOMPHUS OZARKENSIS	OZARK CLUBTAIL DRAGONFLY	G4	AQG	OZ
IIORT17010	Secondary	Terrestrial	GRYLLOTALPA MAJOR	PRAIRIE MOLE CRICKET	G3	UP	R
IITRI25060	Primary	Aquatic	HYDROPSYCHE PIATRIX	NET-SPINNING CADDISFLY	G?	AQH	OZ
IICOL44010	Primary	Terrestrial	NEOCHLAMISUS TUBERCULATUS	LEAF BEETLE	G?		OZ
IIPLE1X060	Primary	Aquatic	NEOPERLA FALAYAH	STONEFLY	G3	AQ	OZ
IIPLE1X120	Primary	Aquatic	NEOPERLA OSAGE	STONEFLY	G3	AQ	OZ
IITRI50020	Primary	Aquatic	NEOTRICHIA KITAE	KITE'S NEOTRICHIAN CADDISFLY	G?	AQ	OZ
IICOL42010	Primary	Terrestrial	NICROPHORUS AMERICANUS	AMERICAN BURYING BEETLE	G1	UF	R
IITRI41020	Primary	Aquatic	OCHROTRICHIA CONTORTA	CONTORTED OCHROTRICHIAN MICRO CADDISFLY	G?	AQS	OZ
IICLL07010	Primary	Karst	ONCOPODURA HOFFI	SPRINGTAIL	G1G2	CV	OZ
IICLL18050	Secondary	Karst	ONCOPODURA IOWAE	SPRINGTAIL	G3G4	CV	R
IIODO12170	Primary	Aquatic	OPHIOGOMPHUS WESTFALLI	OZARK SNAKETAIL DRAGONFLY	G3	AQG	OZ
IITRI07010	Primary	Aquatic	PADUNIELLA NEARCTICA	NEARTIC PADUNIELLAN CADDISFLY	G1?	AQ	OZ
IIMEC04060	Primary	Aquatic	PANORPA BRAUERI	A PANORPID SCORPIONFLY	G1	AQ	R
IILEP94020	Primary	Terrestrial	PAPILIO JOANAE	OZARK SWALLOWTAIL	G3	UP	OZ
IIORT05010	Primary	Terrestrial	PARDALOPHORA SAUSSUREI	GLADE GRASSHOPPER	G?	GG	OZ
IIHEM05010	Primary	Aquatic	PENTACORA SIGNORETI	SHORE BUG	G?	AQS	OZ
IIPLE1U080	Primary	Aquatic	PERLESTA FUSCA	STONEFLY	G3	AQ	OZ

Gelcode	Primary	System	Scientific Name	Common Name	G-rank	Habitat	Target Class
IILEP71010	Primary	Terrestrial	PROBLEMA BYSSUS	GOLDEN BYSSUS	G3G4	UP	MOD
IICLL01070	Primary	Karst	PSEUDOSINELLA DUBIA	A SPRINGTAIL	G1G2	CV	R
IICLL01070	Secondary	Karst	PSEUDOSINELLA ESPANA	A SPRINGTAIL	G3	CV	R
IICOL11010	Primary	Terrestrial	RIMULINCOLA DIVALIS	A BEETLE	G1		OZ
IICOL4L040	Primary	Terrestrial	SCAPHINOTUS INFLECTUS	A GROUND BEETLE	G?		OZ
IIHEM04010	Primary	Aquatic	SIGARA METHESONI	WATER BOATMAN	G?	AQS	OZ
IIODO32110	Primary	Terrestrial	SOMATOCHLORA HINEANA	HINE'S EMERALD DRAGONFLY	G2G3	FS	R
IIODO32180	Primary	Aquatic	SOMATOCHLORA OZARKENSIS	OZARK EMERALD DRAGONFLY	G3	AQH	OZ
IILEPJ6010	Primary	Terrestrial	SPEYERIA DIANA	DIANA	G3	US	MOD
IILEPJ6040	Secondary	Terrestrial	SPEYERIA IDALIA	REGAL FRITILLARY	G3	UP	R
IIPLE0Y020	Primary	Aquatic	STROPHOPTERYX ARKANSAE	STONEFLY	G4	AQ	OZ
IICOLE7010	Primary	Terrestrial	XENOCHALEPUS POTOMACA	LEAF BEETLE	G?	UP	OZ
IICOLJA010	Primary	Karst	XENOTRECHUS CONDEI	CAVE BEETLE	G1G2	CV	OZ
IICOLJA020	Primary	Karst	XENOTRECHUS DENTICOLLIS	CAVE BEETLE	G1G2	CV	OZ
Invertebrate-Isopod							
ICMAL01060	Primary	Karst	CAECIDOTEA ANCYLA	ISOPOD	G2G3	CV	OZ
ICMAL01520	Primary	Karst	CAECIDOTEA ANTRICOLA	ISOPOD	G3G4	CV	OZ
ICMAL01070	Primary	Karst	CAECIDOTEA DIMORPHA	ISOPOD	G1G3	CV	OZ
ICMAL01610	Primary	Karst	CAECIDOTEA FUSTIS	ISOPOD	G3	CV	OZ
ICMAL01170	Primary	Karst	CAECIDOTEA MACROPODA	BAT CAVE ISOPOD	G1G3	CV	R
ICMAL01230	Primary	Karst	CAECIDOTEA OCULATA	ISOPOD	G2G3	CV	OZ
ICMAL01370	Secondary	Karst	CAECIDOTEA PACKARDI	ISOPOD	G3G4	CV	R
ICMAL01320	Primary	Karst	CAECIDOTEA SALAMENSIS	ISOPOD	G?	CV	OZ
ICMAL01690	Primary	Karst	CAECIDOTEA SERRATA	ISOPOD	G1G2	CV	OZ
ICMAL01700	Secondary	Karst	CAECIDOTEA SPATULATA	ISOPOD	G3G4	CV	R
ICMAL01080	Primary	Karst	CAECIDOTEA STEEVESI	ISOPOD	G2G4	CV	OZ
ICMAL01090	Primary	Karst	CAECIDOTEA STILADACTYLA	ISOPOD	G2G3	CV	OZ
ICMAL03030	Primary	Terrestrial	LIRCEUS BICUSPIDATUS	ISOPOD	G3Q	WL	MOD
ICMAL03040	Primary	Terrestrial	LIRCEUS BIDENTATUS	ISOPOD	G1?	WL	OZ
Invertebrate-Mussel							
IMBIV02040	Secondary	Aquatic	ALASMIDONTA MARGINATA	ELKTOE	G4	AQG	DECL
IMBIV02110	Secondary	Aquatic	ALASMIDONTA VIRIDIS	SLIPPER SHELL	G4G5	AQH	DECL
IMBIV08010	Primary	Aquatic	CUMBERLANDIA MONODONTA	SPECTACLECASE	G2G3	AQR	R
IMBIV09010	Secondary	Aquatic	CYCLONAIAS TUBERCULATA	PURPLE WARTYBACK	G5	AQR	DECL
IMBIV10010	Primary	Aquatic	CYPROGENIA ABERTI	WESTERN FANSHELL	G2	AQR	OZ
IMBIV13010	Secondary	Aquatic	ELLIPSARIA LINEOLATA	BUTTERFLY	G4	AQR	DECL
IMBIV16190	Secondary	Aquatic	EPIOBLASMA TRIQUETRA	SNUFFBOX	G3	AQR	R
IMBIV17100	Primary	Aquatic	FUSCONAIA OZARKENSIS	OZARK PIGTOE	G3	AQG	MOD
IMBIV21110	Primary	Aquatic	LAMPSILIS ABRUBTA	PINK MUCKET	G2	AQR	R
IMBIV21250	Secondary	Aquatic	LAMPSILIS CARDIUM (VENTRICOSA)	PLAIN POCKETBOOK	G5	AQG	DECL
IMBIV21170	Primary	Aquatic	LAMPSILIS RAFINESQUEANA	NEOSHO MUCKET	G2	AQR	OZ

Gelcode	Primary	System	Scientific Name	Common Name	G-rank	Habitat	Target Class
IMBIV21181	Primary	Aquatic	LAMPSILIS REEVIANA BREVICULA	BROKEN RAYS	G3T2	AQR	OZ
IMBIV21182	Primary	Aquatic	LAMPSILIS REEVIANA BRITTSI	BRITTS MUSSEL	G3T2	AQR	OZ
IMBIV21183	Primary	Aquatic	LAMPSILIS REEVIANA REEVIANA	REEVE'S MUSSEL	G3T1T2	AQH	OZ
IMBIV21280	Secondary	Aquatic	LAMPSILIS SILIQUOIDEA	FAT MUCKET	G5	AQG	DECL
IMBIV21220	Primary	Aquatic	LAMPSILIS STRECKERI	SPECKLED POCKETBOOK	G1Q	AQR	OZ
IMBIV21240	Secondary	Aquatic	LAMPSILIS TERES ANADONTOIDES	YELLOW SANDSHELL	G5 T?	AQR	DECL
IMBIV24010	Secondary	Aquatic	LEPTODEA FRAGILIS	FRAGILE PAPERSHELL	G5	AQG	DECL
IMBIV24020	Primary	Aquatic	LEPTODEA LEPTODON	SCALESHELL	G1	AQR	MOD
IMBIV26020	Secondary	Aquatic	LIGUMIA RECTA	BLACK SANDSHELL	G5	AQR	DECL
IMBIV31010	Primary	Aquatic	OBOVARIA JACKSONIANA	SOUTHERN HICKORYNUT	G1G2	AQR	DJ
IMBIV34030	Secondary	Aquatic	PLETHOBASUS CYPHYUS	SHEEPNOSE	G3	AQR	R
IMBIV35090	Secondary	Aquatic	PLEUROBEMA CORDATUM	OHIO PIGTOE	G3	AQR	R
IMBIV38040	Secondary	Aquatic	PTYCHOBRANCHUS OCCIDENTALIS	OUACHITA KIDNEYSHELL	G3G4	AQR	R
IMBIV54031	Secondary	Aquatic	PYGANODON GRANDIS CORPULENTA	STOUT FLOATER	G5T3Q	AQR	R
IMBIV39041	Secondary	Aquatic	QUADRULA CYLINDRICA CYLINDRICA	RABBIT'S FOOT	G3T3	AQR	R
IMBIV41010	Secondary	Aquatic	SIMPSONAIAS AMBIGUA	SALAMANDER MUSSEL	G3	AQR	R
IMBIV43030	Primary	Aquatic	TOXOLASMA LIVIDUS (GLANS)	PURPLE LILLIPUT	G2T2	AQG	R
IMBIVA4010	Secondary	Aquatic	VENUSTACONCHA ELLIPSIFORMIS	ELLIPSE	G3G4	AQG	R
IMBIVA4020	Primary	Aquatic	VENUSTACONCHA PLEASII	BLEEDINGTOOTH	G3G4	AQR	OZ
Invertebrate-Other							
ILARA29070	Primary	Karst	APOCHTHONIUS COLECAMPI	CAVE PSEUDOSCORPION	G1G2	CV	OZ
ILARA29110	Primary	Karst	APOCHTHONIUS MYSTERIUS	CAVE PSEUDOSCORPION	G1G2	CV	OZ
ILARA29130	Primary	Karst	APOCHTHONIUS TITANICUS	CAVE PSEUDOSCORPION	G1G2	CV	OZ
ILARA29140	Primary	Karst	APOCHTHONIUS TYPHLUS	CAVE PSEUDOSCORPION	G1G2	CV	OZ
--	Primary	Aquatic	BATRACOBDELLA CRYPTOBRANCHII	OZARK HELLBENDER LEECH	--	AQR	OZ
ILARAB0010	Primary	Karst	CROSBYELLA DISTINCTA	CAVE HARVESTMAN	G1G2	CV	OZ
IPTUR11020	Primary	Karst	DENDROCOELOPSIS AMERICANA	CAVE PLANARIAN	G3G4	CV	OZ
ILARAA5010	Primary	Karst	EREBOMASTER FLAVESCENS	CAVE HARVESTMAN	G1G2	CV	R
ILARA27010	Primary	Karst	ISLANDIANA SPEOPHILA	CAVERN SHEET-WEB SPIDER	G1	AQC	R
IPTUR05010	Primary	Karst	MACROCOTYLA GLANDULOSA	PINK PLANARIAN	G1G3	AQC	R
IPTUR05030	Primary	Karst	MACROCOTYLA LEWISI	LEWIS' PLANARIAN	G1G2	AQC	OZ
ILARA35020	Primary	Karst	MUNDOCHTHONIUS CAVERNICOLUS	TROGLOBITIC PSEUDOSCORPION	G3G4	CV	OZ
ITUNI01010	Primary	Karst	SCOTERPES DENDROPUS	CAVE MILLIPEDE	G?	CV	OZ
IPTUR04120	Primary	Karst	SPHALLOPLANA EVAGINATA	CAVE PLANARIAN	G1G2	AQC	OZ
IPTUR04080	Primary	Karst	SPHALLOPLANA HUBRICHTI	CAVE PLANARIAN	G3G4	AQC	OZ
ITUNI76010	Primary	Karst	TRIGENOTYLA PARCA	CAVE MILLIPEDE	G1G2	CV	OZ
ITUNI02010	Secondary	Karst	ZOSTERACTIS INTERMINATA	A MILLIPEDE	G3G4	CV	R

Gelcode	Primary	System	Scientific Name	Common Name	G-rank	Habitat	Target Class
Invertebrate-Snail							
IMGASF4040	Primary	Karst	AMNICOLA CORA	FOUSHEE CAVESNAIL	G1	AQC	OZ
IMGASF4110	Primary	Karst	AMNICOLA STYGIUS	STYGIAN CAVESNAIL	G1	AQC	OZ
IMGASF5010	Primary	Karst	ANTROBIA CULVERI	TUMBLING CREEK CAVESNAIL	G1	AQC	OZ
IMGASK2550	Primary	Aquatic	ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	AQG	OZ
IMGASG5110	Primary	Karst	FONTIGENS ALDRIICHI	HOOSIER AMNICOLA	G3G4	AQC	MOD
IMGASG5090	Primary	Karst	FONTIGENS ANTROECETES	ENIGMATIC CAVESNAIL	G2	AQC	R
IMGASG5120	Primary	Karst	FONTIGENS PROSERPINA	PROSERPINE CAVESNAIL	G1	AQC	R
IMGASK5150	Primary	Aquatic	LEPTOXIS ARKANSENSIS	ARKANSAS MUDALIA	G1	AQH	OZ
IMGASM8050	Primary	Aquatic	MICROMENETUS SAMPSONI	A SNAIL	G2G3	AQ	R
IMGAS96230	Primary	Terrestrial	MILLERELIX PEREGRINA (POLYGRYA)	WHITE LIPTOOTH	G?	RO	OZ
IMGAS95100	Primary	Terrestrial	PATERA CLENCHI (MESODON)	CALICO ROCK OVAL	G?	RO	MOD
IMGASJ0040	Primary	Aquatic	PYRGULOPSIS OZARKENSIS	OZARK PYRG	G1	AQH	OZ
IMGASJ0050	Primary	Aquatic	PYRGULOPSIS SCALARIFORMIS	MOSS PYRG	G1	AQH	R
IMGASJ2370	Primary	Aquatic	SOMATOGYRUS ROSEWATERI	CHERT PEBBLESNAIL	G1	AQH	OZ
IMGAS20190	Primary	Terrestrial	VERTIGO MERAMECENSIS	BLUFF VERTIGO	G2	UF	R
IMGASF0030	Primary	Aquatic	VIVIPARUS SUBPURPUREUS	OLIVE MYSTERYSNAIL	G2G3	AQR	R
Mammal							
AMABA03030	Primary	Terrestrial	BLARINA HYLOPHAGA	ELLIOT'S SHORT-TAILED SHREW	G4	US	OZ
AMACC08011	Primary	Karst	CORYNORHINUS TOWNSEDII INGENS	OZARK BIG-EARED BAT	G4T1	CV	OZ
AMAFC02010	Primary	Terrestrial	GEOMYS BURSANUS OZARKENSIS	OZARK POCKET GOPHER	G5T?	US	OZ
AMACC01030	Secondary	Terrestrial	MYOTIS AUSTRORIPARIUS	SOUTHEASTERN BAT	G3G4	BF	R
AMACC01040	Primary	Karst	MYOTIS GRISESCENS	GRAY BAT	G3	CV	MOD
AMACC01130	Secondary	Karst	MYOTIS LEBII	SMALL-FOOTED MYOTIS	G3	CV	R
AMACC01100	Primary	Karst	MYOTIS SODALIS	INDIANA BAT	G2	CV-BF	R
AMAFF08010	Primary	Terrestrial	NEOTOMA FLORIDANA OSAGENSIS	OSAGE WOODRAT	G5T3?	RO	OZ
AMAJF05011	Secondary	Terrestrial	SPILOGALE PUTORIUS INTERRUPTA	PLAINS SPOTTED SKUNK	G5T4	HG	DECL
AMAJB01010	Secondary	Terrestrial	URSUS AMERICANUS	BLACK BEAR	G5	HG	DJ
Plant-Lichen							
--	Secondary	Terrestrial	PANNARIA RUBIGINOSA	A LICHEN	--	UF	DJ
--	Primary	Terrestrial	PYRENULA MICHENERI	A LICHEN	--	BF	MOD?
--	Secondary	Terrestrial	TUCKERMANNOPSIS AMERICANA	A LICHEN	--	US	DJ
Plant-Liverwort							
--	Secondary	Terrestrial	LEUCOLEJEUNEA LAMACERINA GEMMINATA	A LIVERWORT	--	US	DJ
NBHEP2A050	Secondary	Terrestrial	NARDIA LESCURII	A LIVERWORT	G3?	US	R
NBHEP2M012	Primary	Karst	PLAGIOCHILA ACANTHOPHYLLA	A LIVERWORT	GUT1	CV	OZ
--	Primary	Terrestrial	RICCIA OZARKIANA	A LIVERWORT	--	SP	OZ?

Gelcode	Primary	System	Scientific Name	Common Name	G-rank	Habitat	Target Class
Plant-Moss							
NBMUS1A0U0	Secondary	Terrestrial	BRYUM MINIATUM	A MOSS	G3G4	RO	R
--	Primary	Terrestrial	FONTINALIS WELCHII	A MOSS	--	WL	MOD
NBMUS3J010	Secondary	Terrestrial	HOMALIADELPHUS SHARPII	SHARP'S HOMALIADELPHUS	G3	RO	R
--	Secondary	Terrestrial	TORTULA CHISOSA	A MOSS	--	RO	DJ
--	Primary	Terrestrial	VENTURIELLA SINENSIS ANGUSTIANNULATA	A MOSS	--	RO	MOD?
--	Secondary	Terrestrial	WEISSIA SHARPII	A MOSS	--	GG	DJ
NBMUS7Z010	Primary	Terrestrial	ZYGODON APICULATUS	A MOSS	G?	US	OZ
Plant-Vascular							
PDRAN010A0	Secondary	Terrestrial	ACONITUM UNCINATUM	SOUTHERN MONKSHOOD	G4	UF	DJ
PDSCR01130	Secondary	Terrestrial	AGALINIS AURICULATA	AURICULATE FALSE FOXGLOVE	G3	UP	R
PDSCR010T0	Secondary	Terrestrial	AGALINIS SKINNERIANA	PALE GERARDIA	G3	GG	R
PDEUP06020	Primary	Terrestrial	ANDRACHNE PHYLLANTHOIDES	MISSOURI BUCK-BRUSH	G4	GG	MOD
PDASC02150	Primary	Terrestrial	ASCLEPIAS MEADII	MEAD'S MILKWEED	G2	UP	R
PPASP020U0	Secondary	Terrestrial	ASPLENIUM MONTANUM	MOUNTAIN SPLEENWORT	G5	RO	DJ
PPASP021B1	Secondary	Terrestrial	ASPLENIUM RUTA-MURARIA	WALL-RUE SPLEENWORT	G5	RO	DJ
PDAST0T050	Primary	Terrestrial	ASTER ANOMALUS	MANY-RAY ASTER	G4G5	US	MOD
PDAST0T170	Secondary	Terrestrial	ASTER FURCATUS	FORKED ASTER	G3	RO	R
PDAST0T3F0	Primary	Terrestrial	ASTER TURBINELLUS	PRAIRIE ASTER	G3G5	US	MOD
PDSCR05021	Primary	Terrestrial	AUREOLARIA GRANDIFLORA CINEREA	BIG-FLOWERED GERARDIA	G4G5TU	US	MOD
PDBER02010	Secondary	Terrestrial	BERBERIS CANADENSIS	ALLEGHENY BARBERRY	G3	RO	DJ
PDAST1E040	Primary	Terrestrial	BOLTONIA DECURRENS	DECURRENT FALSE ASTER	G2	WL	R
PMPOA150Z0	Secondary	Terrestrial	BROMUS NOTTOWAYANUS	A BROME	G3G4	US	R
PMPOA170Z3	Secondary	Terrestrial	CALAMAGROSTIS PORTERI SSP INSPERATA	OFERHOLLOW REED GRASS	G4T3	US	R
PDMAL0A020	Primary	Terrestrial	CALLIRHOE BUSHII	BUSH'S POPPY MALLOW	G3	GG	MOD
PDMAL0A030	Primary	Terrestrial	CALLIRHOE DIGITATA	FRINGED POPPY MALLOW	G4	UP	MOD
PDMAL0A080	Secondary	Terrestrial	CALLIRHOE TRIANGULATA	CLUSTERED POPPY MALLOW	G3?	GG	R
PMCYP030C0	Secondary	Terrestrial	CAREX ALATA	BROADWING SEDGE	G5	SP	DJ
PMCYP033K0	Secondary	Terrestrial	CAREX DECOMPOSITA	CYPRESS-KNEE SEDGE	G3	SP	R
PMCYP034P0	Primary	Terrestrial	CAREX FISSA VAR FISSA	A SEDGE	G3G4Q	UP	MOD
PMCYP03D00	Secondary	Terrestrial	CAREX STRAMINEA	STRAW SEDGE	G5	SP	DJ
PDFAG01042	Primary	Terrestrial	CASTANEA PUMILA VAR OZARKENSIS	OZARK CHINQUAPIN	G5T3	US	MOD
PDSCR0F043	Secondary	Terrestrial	CHELONE OBLIQUA VAR SPECIOSA	ROSE TURTLEHEAD	G4T3	BS	R
PDRAN080C0	Primary	Terrestrial	CLEMATIS FREMONTII	FREMONT'S LEATHER FLOWER	G5	GG	MOD
PDRAN080X0	Primary	Terrestrial	CLEMATIS VERSICOLOR	MANY-COLOR VIRGIN'S BOWER	G4?	US	MOD
PDAST2L0B4	Secondary	Terrestrial	COREOPSIS GRANDIFLORA SAXICOLA	LARGE-FLOWERED TICKSEED	G5T4?	GG	DJ
PMORC0Q0F0	Secondary	Terrestrial	CYPRIPEDIUM KENTUCKIENSE	SOUTHERN LADY'S-SLIPPER	G3	UF	R
PDFAB1A0N0	Secondary	Terrestrial	DALEA GATTINGERI	GATTINGER PRAIRIE-CLOVER	G3G4	GG	DJ
PDRAN0B0J0	Secondary	Terrestrial	DELPHINIUM EXALTATUM	TALL LARKSPUR	G3	UF	DJ

Gelcode	Primary	System	Scientific Name	Common Name	G-rank	Habitat	Target Class
PDRAN0B140	Primary	Terrestrial	DELPHINIUM NEWTONIANUM	MOORE'S LARKSPUR	G3	UF	OZ
PDRAN0B1S0	Primary	Terrestrial	DELPHINIUM TRELEASEI	TRELEASE'S LARKSPUR	G3	GG	OZ
PDFAB1D0M0	Primary	Terrestrial	DESMODIUM HUMIFUSUM	TRAILING TICK-TREFOIL	G1G2Q	US	DJ
PDPRI03020	Secondary	Terrestrial	DODECATHEON AMETHYSTINUM	AMETHYST SHOOTING STAR	G4	RO	DJ
PDPRI03060	Primary	Terrestrial	DODECATHEON FRENCHII	FRENCH'S SHOOTING STAR	G3	RO	MOD
PDBRA11060	Primary	Terrestrial	DRABA APRICA	WHITLOW GRASS	G3	GG	MOD
PDAST38050	Primary	Terrestrial	ECHINACEA PARADOXA	BUSH'S YELLOW CONEFLOWER	G2	GG	OZ
PMALI02050	Secondary	Terrestrial	ECHINODORUS TENELLUS VAR PARVULUS	DWARF BURHEAD	G3Q	WL	R
PMPOA2H0P0	Secondary	Terrestrial	ELYMUS DIVERSIGLUMIS	WILD RYE	G3?Q	US	R
PPEQU010E0	Secondary	Terrestrial	EQUISETUM X NELSONII	NELSON'S SCOURING RUSH	HYB/N?	FS	DJ
PMERI01040	Primary	Terrestrial	ERIOCAULON KOERNICKIANUM	SMALL-HEADED PIPEWORT	G2	GG	DJ
PDPGN083R3	Primary	Terrestrial	ERIOGONUM LONGIFOLIUM VAR LONGIFOLIUM	UMBRELLA PLANT	G4T3T4	GG	MOD
PDROS0Q020	Secondary	Terrestrial	FILIPENDULA RUBRA	QUEEN OF THE PRAIRIE	G4G5	FS	DJ
PDHAM01020	Secondary	Terrestrial	FOTHERGILLA MAJOR	WITCH-ALDER	G3	UF	DJ
PDRUB0N070	Primary	Terrestrial	GALIUM ARKANSANUM	ARKANSAS BEDSTRAW	G5	US	MOD
PDRUB0N0B0	Secondary	Terrestrial	GALIUM BOREALE	NORTHERN BEDSTRAW	G5	UF	DJ
PDCAR15010	Primary	Terrestrial	GEOCARPON MINIMUM	GEOCARPON	G2	GG	MOD
PMPOA2Y010	Secondary	Terrestrial	GLYCERIA ACUTIFLORA	SHARP-SCALED MANNA GRASS	G5	SP	DJ
PDHAM02010	Primary	Terrestrial	HAMAMELIS VERNALIS	OZARK WITCH-HAZEL	G4?	SH	MOD
PDSAX0E0T2	Primary	Terrestrial	HEUCHERA PARVIFLORA VAR PUBERULA	LITTLE-LEAVED ALUMROOT	G4T3T4	RO	MOD
PDSAX0E141	Primary	Terrestrial	HEUCHERA VILLOSA VAR ARKANSANA	ARKANSAS ALUMROOT	G5T3Q	RO	OZ
PPISO01020	Primary	Terrestrial	ISOETES BUTLERI	BUTLER'S QUILLWORT	G4	GG	MOD
PDJUG02030	Secondary	Terrestrial	JUGLANS CINEREA	BUTTERNUT	G3G4	BF	DECL
PGCUP05010	Secondary	Terrestrial	JUNIPERUS ASHEI	ASHE'S JUNIPER	G5	GG	DJ
PDLEI01010	Secondary	Terrestrial	LEITNERIA FLORIDANA	CORKWOOD	G3	WL	R
PDBRA1N0K0	Primary	Terrestrial	LESQUERELLA FILIFORMIS	MISSOURI BLADDER-POD	G3	GG	OZ
PPLYC010D0	Secondary	Terrestrial	LYCOPODIUM DENDROIDEUM	ROUND-BRANCHED GROUND PINE	G5	UF	DJ
PPLYC01130	Secondary	Terrestrial	LYCOPODIUM TRISTACHYUM	GROUND CEDAR	G5	UF	DJ
PDMAG02090	Secondary	Terrestrial	MAGNOLIA TRIPETALA	UMBRELLA MAGNOLIA	G5	UF	DJ
PDASC0A040	Primary	Terrestrial	MATELEA BALDWYNIANA	BALDWIN'S MILKVINE	G3	UF	MOD
PMLIL1F01001	Secondary	Terrestrial	MELANTHIUM HYBRIDUM	BROADLEAF BUNCHFLOWER	G5	US	DJ
PDMNY02010	Secondary	Terrestrial	MENYANTHES TRIFOLIATA	BOG BUCKBEAN	G5	FS	DJ
PDSCR1B170	Secondary	Terrestrial	MIMULUS FLORIBUNDUS	FLORIFEROUS MONKEYFLOWER	G5	FS	DJ
PMIRI0B030	Primary	Terrestrial	NEMASTYLIS NUTTALLII	CELESTIAL LILY	G4	GG	MOD
PDROS14010	Primary	Terrestrial	NEVIUSIA ALABAMENSIS	SNOW WREATH	G2	UF	R
PDBOR05034	Primary	Terrestrial	ONOSMODIUM MOLLE SUBSETOSUM	FALSE GROMWELL	G4G5T?	GG	MOD
PMPOA4J0A0	Secondary	Terrestrial	ORYZOPSIS RACEMOSA	BLACK-SEEDED MOUNTAIN RICE	G5	US	DJ
PMPOA240N0	Primary	Terrestrial	PANICUM MALACOPHYLLUM	SHORT-LEAF WITCHGRASS	G4G5	GG	MOD

Gelcode	Primary	System	Scientific Name	Common Name	G-rank	Habitat	Target Class
PDAST6V063	Primary	Terrestrial	PARTHENIUM INTEGRIFOLIUM HISPIDUM	HISPID FEVERFEW	G5T4	GG	MOD
PDSCR1L0G0	Primary	Terrestrial	PENSTEMON ARKANSANUS	ARKANSAS BEARDTONGUE	G5	GG	MOD
PDSCR1L1F1	Primary	Terrestrial	PENSTEMON COBAEA PURPUREUS	PURPLE BEARD-TONGUE	G4T	GG	OZ
PDHYD0C1N0	Primary	Terrestrial	PHACELIA GILIOIDES	BRAND PHACELIA	G5	BS	OZ
PDHDR090C0	Secondary	Terrestrial	PHILADELPHUS HIRSUTUS	A MOCK ORANGE	G5	US	DJ
PDPLN02090	Secondary	Terrestrial	PLANTAGO CORDATA	HEART-LEAVED PLANTIAN	G4	WL	DECL
PDROS1B0D0	Secondary	Terrestrial	POTENTILLA CANADENSIS	CANADA CINQUEFOIL	G5	US	DJ
PDRAN0L130	Primary	Terrestrial	RANUNCULUS HARVEYI	HARVEY'S BUTTERCUP	G4	US	MOD
PDAST850B0	Primary	Terrestrial	RUDBECKIA MISSOURIENSIS	MISSOURI ORANGE CONEFLOWER	G4G5	GG	MOD
PDSAX0U1T0	Primary	Terrestrial	SAXIFRAGA TEXANA	TEXAS SAXIFRAGE	G4	GG	MOD
PMCYP0Q0G0	Secondary	Terrestrial	SCHOENOPLECTUS DELTARUM (SCIRPUS)	DELTA BULRUSH	G3G4	WL	R
PMCYP0Q0L0	Secondary	Terrestrial	SCHOENOPLECTUS ETUBERCULATUS (SCIRPUS)	CANBY'S BULRUSH	G3G4	WL	R
PMCYP0Q0R0	Primary	Terrestrial	SCHOENOPLECTUS HALLII (SCIRPUS)	HALL'S BULRUSH	G2	WL	R
PMCYP0Q1G0	Secondary	Terrestrial	SCIRPUS SUBTERMINALIS	SWAYING RUSH	G4G5	WL	DJ
PMCYP0Q1J0	Secondary	Terrestrial	SCIRPUS TORREYI	TORREY'S BULRUSH	G5?	WL	DJ
PMCYP0R0K0	Secondary	Terrestrial	SCLERIA RETICULARIS	NUTRUSH	G3G4	BP	R
PDLAM1U0C0	Primary	Terrestrial	SCUTELLARIA BUSHII	BUSH'S SKULLCAP	G3	GG	OZ
PDCRA0A0S0	Primary	Terrestrial	SEDUM NUTTALLIANUM	NUTTALL'S SEDUM	G5	GG	MOD
PDBRA29010	Primary	Terrestrial	SELENIA AUREA	GOLDEN SELENIA	G4G5	GG	MOD
PDCAR0U0B3	Secondary	Terrestrial	SILENE CAROLINIANA WHERRYI	WHERRY'S CATCHFLY	G5TU	US	DJ
PDCAR0U180	Primary	Terrestrial	SILENE OVATA	OVATE-LEAF CATCHFLY	G2G3	US	DJ
PDCAR0U1G0	Secondary	Terrestrial	SILENE REGIA	ROYAL CATCHFLY	G3G4	US	R
--	Primary	Terrestrial	SOLIDAGO DRUMMONDII	DRUMMONDS GOLDENROD	--	RO	MOD
PDAST8P0P0	Primary	Terrestrial	SOLIDAGO GATTINGERI	GATTINGER'S GOLDENROD	G3?Q	GG	MOD
PMCOM0B060	Primary	Terrestrial	TRADESCANTIA ERNESTIANA	ERNEST'S SPIDER-WORT	G3G4Q	US	OZ
PMCOM0B0D0	Primary	Terrestrial	TRADESCANTIA LONGIPES	A SPIDERWORT	G4	US	OZ
PMCOM0B0H0	Primary	Terrestrial	TRADESCANTIA OZARKANA	OZARK SPIDERWORT	G3	UF	OZ
PDRAN0N010	Secondary	Terrestrial	TRAUTVETTERIA CAROLINIENSIS	FALSE BUGBANE	G5	RO	DJ
PPHYM02040	Secondary	Terrestrial	TRICHOMANES BOSCHIANUM	BRISTLE-FERN	G4	RO	DJ
PPHYM020K0	Secondary	Terrestrial	TRICHOMANES PETERSII	DWARF FILMY-FERN	G4G5	RO	DJ
PDFAB40250	Secondary	Terrestrial	TRIFOLIUM STOLONIFERUM	RUNNING BUFFALO CLOVER	G3	BS	R
PMLIL200Q1	Primary	Terrestrial	TRILLIUM PUSILLUM VAR OZARKANUM	OZARK WAKE ROBIN	G3T3	UF	MOD
PMLIL20110	Primary	Terrestrial	TRILLIUM VIRIDE	GREEN TRILLIUM	G4G5	UF	MOD
PDCAM0N030	Primary	Terrestrial	TRIODANIS LAMPROSPERMA	PRAIRIE VENUS' LOOKING-GLASS	G5?	GG	MOD
PDULM040B0	Secondary	Terrestrial	ULMUS THOMASII	ROCK ELM	G5	BS	DJ
PDVAL04080	Primary	Terrestrial	VALERIANELLA NUTTALLII	NUTTALL CORN-SALAD	G1G2	BS	MOD
PDVAL04090	Primary	Terrestrial	VALERIANELLA OZARKANA	OZARK CORN SALAD	G3	GG	MOD
PDAST95040	Primary	Terrestrial	VERNONIA ARKANSANA	ARKANSAS IRONWEED	G4	GG	OZ
PDROS1S010	Secondary	Terrestrial	WALDSTEINIA FRAGARIOIDES	BARREN STRAWBERRY	G5	RO	DJ
PMLIL28030	Secondary	Terrestrial	ZIGADENUS ELEGANS	WHITE CAMAS	G5	RO	DJ

Gelcode	Primary	System	Scientific Name	Common Name	G-rank	Habitat	Target Class
Reptile							
ARADE01014	Primary	Terrestrial	AGKISTRODON CONTORTRIX PHAEOGASTER	OSAGE COPPERHEAD	G5T5	HG	OZ
ARADB02013	Primary	Terrestrial	CARPHOPHIS VERMIS	WESTERN WORM SNAKE	G5T5	US	OZ
ARADB03012	Secondary	Terrestrial	CEMOPHORA COCCINEA COPEI	NORTHERN SCARLET SNAKE	G5T5	UF	DJ
ARACH01012	Primary	Terrestrial	EUMECES ANTHRACINUS PLUVIALIS	SOUTHERN COAL SKINK	G5T5	UF	OZ
ARADB17011	Secondary	Terrestrial	HETERODON NASICUS GLOYDI	DUSTY HOGNOSE SNAKE	G5T3T4Q	UP	DJ
ARAAE01021	Secondary	Aquatic	KINOSTERNON FLAVESCENS FLAVESCENS	YELLOW MUD TURTLE	G5T5	AQG	DJ
ARADB19011	Primary	Terrestrial	LAMPROPELTIS CALLIGASTER CALLIGASTER	PRAIRIE KINGSNAKE	G5T5	UP	OZ
ARADB19057	Primary	Terrestrial	LAMPROPELTIS TRIANGULUM SYSPILA	RED MILK SNAKE	G5T5	US	OZ
ARAAB02010	Secondary	Aquatic	MACROCLEMYS TEMMINCKII	ALLIGATOR SNAPPING TURTLE	G3G4	AQR	R
ARAAD07026	Primary	Aquatic	PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	AQR	OZ
ARADB27040	Secondary	Terrestrial	REGINA SEPTEMVITTATA	QUEEN SNAKE	G5	WL	DJ
ARADE03011	Secondary	Terrestrial	SISTRURUS CATENATUS CATENATUS	EASTERN MASSASAUGA	G3G4T3T4	WL	R

Appendix 1.B Natural Community Targets

This appendix provides a comprehensive list of all the natural communities and natural community complexes used for the Ozarks Ecoregional Assessment. Data are presented in seven columns, as follows:

Column 1. ID - Provides a unique tracking number for the natural community or natural community complex. Note that numbers may not always be sequential because of recombinations and deletions.

Column 2. Complex Name - Indicates in bold type the accepted name for the natural community or natural community complex as used in this assessment. For natural community complexes, this name is followed by a list of the Heritage Program natural communities included within the complex.

Column 3. Alliances - Provides the formal name of each natural community used by Natural Heritage programs and NatureServe.

Column 4. Gelcode - Indicates the unique identifier code for each natural community recognized by NatureServe; note that natural community complexes as derived for this assessment do not have global element codes.

Column 5. G-rank - Identifies the global conservation rank of the community type; for natural community complexes developed during this assessment, G-ranks were derived from the highest priority G-rank of the component natural communities. Note that, for reasons discussed in the Natural Community Targets section of this document, there are high levels of uncertainty regarding G-ranks for many natural communities, and these ranks should be considered as extremely tentative.

Column 6. Range - Identifies the imputed distribution pattern of each natural community type – endemic, restricted, or widespread. As with G-ranks for natural communities, these designations are tentative and highly uncertain.

Column 7. Comments - Provides information on community names, including those used in Missouri by Nelson (1985).

Appendix 1B. Natural Community Targets

ID	Complex Name	Alliances	Gelcode	G-rank	Range	Comments
103	**Shortleaf Pinery Complex**			G1-G4	Restricted	
	Evergreen forest	1 - Pinus echinata / Vaccinium (arboreum, pallidum, stamineum) Forest	CEGL002400	G3G4	Restricted	Pine Forest
	Evergreen woodland	27 - Pinus echinata / Schizachyrium scoparium - Solidago ulmifolia - Monarda russeliana - Echinacea pallida Woodland	CEGL007815	G1G2	Restricted	Pine Woodland
104	**Acid Deciduous Woodland Complex**			G?	Endemic	
	Deciduous forest	4 - Quercus alba - Quercus rubra - Carya (alba, ovata) / Cornus florida Acid Forest (mesic version)	CEGL002067	G3	Widespread	Mesic Forest (Acid)
	Deciduous woodland	28 - Quercus alba - Quercus stellata - Quercus velutina / Schizachyrium scoparium Woodland (w/scarlet-graminoid)	CEGL002150	G2G3	Endemic	Dry/Dry-Mesic Woodland
	Deciduous woodland	30 - Quercus stellata - Quercus marilandica - Carya texana / Schizachyrium scoparium Woodland (w/velutina)	CEGL002149	G2G3	Widespread	Dry Siliceous Woodland (in part)
	Deciduous woodland	33 - Quercus marilandica / Vaccinium arboreum / Danthonia spicata Dwarf Forest (woodland)	CEGL002425	G3G4	Restricted	Xeric Siliceous Woodland
	Deciduous woodland	34 - Quercus stellata - Quercus marilandica - Carya (glabra - texana) / Vacinium arboreum Forest (woodland)	CEGL002075	G4	Widespread	Dry Siliceous Woodland (in part)
	Deciduous woodland	36 - Quercus velutina - Quercus coccinea - Carya texana Ozark Forest (woodland)	CEGL002399	G?	Endemic	Dry-Mesic Siliceous Woodland
105	**High-Base Deciduous Woodland Complex**			G3-G5	Endemic	
	Deciduous woodland	29 - Quercus muehlenbergii - Fraxinus (quadrangulata, americana) / Schizachyrium scoparium Woodland	CEGL002143	G3G4	Endemic	Dry Carbonate Woodland (in part)
	Deciduous woodland	31 - Quercus alba - Quercus rubra - Quercus muehlenbergii / Cercis canadensis Forest (dolomite woodland dry-mesic)	CEGL002070	G4G5	Widespread	Mesic/Dry-Mesic Carbonate Woodland
	Evergreen-deciduous woodland	40 - Quercus muehlenbergii - Juniperus virginiana - Acer saccharum / Frangula caroliniana (woodland) (maple variable by site)	CEGL002108	G3G4	Endemic	Carbonate Woodland (in part)
106	**Pine-Oak Woodland Complex**			G2-G4	Restricted	
	Evergreen-deciduous forest	24 - Pinus echinata - Quercus alba / Cornus florida Forest				Mesic Pine Oak Woodland
	Evergreen-deciduous woodland	38 - Pinus echinata - Quercus alba / Schizachyrium scoparium Woodland	CEGL002394	G3G4	Restricted	Dry Mesic Pine Oak Woodland
	Evergreen-deciduous woodland	39 - Pinus echinata - Quercus stellata - Quercus marilandica / Schizachyrium scoparium Woodland (two phases)	CEGL002393	G2G3	Restricted	Dry Pine Oak Woodland (in part)
	Evergreen-deciduous woodland	41 - Pinus echinata - Quercus (alba, rubra) / Vaccinium (arboreum, pallidum) / Schizachyrium scoparium - Chasmanthium sessiliflorum - Solidago ulmifolia	CEGL007489	G3G4	Restricted	Dry Pine Oak Woodland (in part)
107	**Ashe Juniper Woodland**			G2?	Endemic	
	Evergreen woodland	25 - Juniperus ashei / Cotinus obovatus / Carex eburnea - Rudbeckia missouriensis Woodland (white r. glades)	CEGL007833	G2?	Endemic	White River Dolomite Woodland
	Evergreen woodland	26 - Juniperus ashei Ozark Woodland (clifftop)	CEGL004672	G2?	Endemic	White River Dolomite Blufftop

ID	Complex Name	Alliances	Gelcode	G-rank	Range	Comments
108	**Rock Chestnut Oak Woodland**			G3G5	Widespread	
	Deciduous forest *only found in IL Ozarks / site = Atwood Ridge	5 - Quercus prinus / Smilax spp. Forest	CEGL005022	G3G5	Widespread	Rock Chestnut Oak Woodland
109	**Upland Flatwoods**			G2G3	Widespread	
	Deciduous woodland	35 - Quercus stellata / Cinna arundinacea Flatwoods Forest (woodland) may need split	CEGL002405	G2G3	Widespread	Upland Flatwoods
110	**Mesophytic Deciduous Woodland Complex**			G?	Restricted	
	Deciduous forest	6 - Acer saccharum - Quercus rubra - Carya cordiformis / Asimina triloba Forest (ash white/green)	CEGL002060	G3	Restricted	
	Deciduous forest	7 - Quercus alba - Quercus rubra - Acer saccharum - Carya cordiformis / Lindera benzoin Forest	CEGL002058	G3?	Restricted	
	Deciduous woodland	32 - Quercus alba / Cornus florida Unglaciated Forest (high base woodland mesic)	CEGL002066	G?	Widespread	
111	**Mesophytic Deciduous Woodland Complex - Beech Phase**			G4?	Widespread	
	Deciduous forest	2 - Fagus grandifolia - Acer saccharum - Liriodendron tulipifera Unglaciated Forest	CEGL002411	G4?	Widespread	Beech-Maple Woodland/Forest Complex
	Deciduous forest	3 - Fagus grandifolia - Quercus rubra / Tilia americana var. americana - Ilex opaca Forest				
	Deciduous forest	94 - Fagus grandifolia - Quercus rubra - Quercus alba Forest (northern subtype)				Mesic Beech Woodland/Forest Complex
112	**Ozark Riparian Woodland Complex**			G3?-G4	Restricted	
	Deciduous temporarily flooded forest	15 - Quercus michauxii - Quercus shumardii - Liquidambar styraciflua / Arundinaria gigantea Forest	CEGL002099	G3G4	Widespread	Canebreak Bottomland Hardwoods
	Deciduous temporarily flooded forest	16 - Quercus macrocarpa - Quercus shumardii - Carya cordiformis / Chasmanthium latifolium Forest (w/shellbark and pecan)	CEGL004544	G3?	Restricted	Wet-Mesic Bottomland Hardwoods
113	**Mesophytic Bottomland Woodland Complex**			G2-G4	Restricted	
	Deciduous temporarily flooded forest	10 - Acer saccharum - Carya cordiformis / Asimina triloba Floodplain Forest	CEGL005035	G2	Widespread	Mesic Bottomland Forest
	Deciduous temporarily flooded forest	12 - Liquidambar styraciflua - (Acer saccharum, Quercus alba) / Carpinus caroliniana / Lindera benzoin Forest	CEGL007826	G3G4	Restricted	Wet-Mesic Bottomland Forest

ID	Complex Name	Alliances	Gelcode	G-rank	Range	Comments
114	**Large River Riparian Woodland Complex**			G3?-G4	Restricted	
	Deciduous temporarily flooded forest	8 - Acer saccharinum - Betula nigra /Cephalanthus occidentalis forest	CEGL007810	G3?	Restricted	Wet Floodplain Forest (in part)
	Deciduous temporarily flooded forest	9 - Acer saccharinum - Celtis laevigata - Carya illinoinensis Forest	CEGL002431	G3G4	Widespread	Wet Floodplain Forest (in part)
	Deciduous temporarily flooded forest	11 - Fraxinus pennsylvanica - Celtis spp. - Quercus spp. - Platanus occidentalis Bottomland Forest (w/o oak w/silver maple and birch)	CEGL002410	G3G4	Restricted	Wet-Mesic Floodplain Forest
	Deciduous temporarily flooded forest	13 - Populus deltoides - Salix nigra Forest	CEGL002018	G3G4	Widespread	Riverbank/Bar Woodland
	Deciduous temporarily flooded forest	14 - Populus deltoides - Ulmus americana - Celtis laevigata Forest (w/silver maple or sugar maple???)	CEGL002096	G3	Restricted	Big River Wet-Mesic Bottomland Forest
	Deciduous temporarily flooded forest	17 - Quercus palustris - Liquidambar styriciflua Big River Forest				
	Deciduous temporarily flooded shrubland	47 - Salix nigra Temporarily Flooded Shrubland [Provisional]	CEGL003901	G?	Widespread	Floodplain Willow Grove
	Deciduous forest	95 - Quercus palustris - Quercus bicolor - (Liquidambar styriciflua) Mixed Hardwood Forest	CEGL002432	G3G4	Widespread	Wet-Mesic Floodplain Woodland
115	**Hydric Flatwoods**					
	Deciduous seasonally flooded forest	19 - Quercus palustris - (Quercus stellata) - Quercus pagoda / Isoetes spp. Forest	CEGL002101	G2G3	Widespread	Hydric Flatwoods
	Deciduous woodland	37 - Quercus falcata - ?/? Flatwoods woodlands				Mesic Flatwoods
116	**Southern Flatwoods**			G3G4Q	Widespread	
	Deciduous seasonally flooded forest	20 - Quercus phellos -(Quercus lyrata) / Carex spp. - Leersia spp. Flatwoods Forest	CEGLOO2102	G3G4Q	Widespread	Southern Flatwoods
117	**Overcup Pond Forest**			G1G3	Restricted	
	Deciduous seasonally flooded forest	18 - Quercus lyrata (or Quercus palustirs) Pond Forest	CEGL004642	G1G3	Restricted	Pond Forest
118	**Alder Thicket**			G3?	Restricted	
	Deciduous temporarily flooded shrubland	43 - Alnus serrulata - Amorpha fruticosa Shrubland	CEGL007807	G3?	Restricted	Alder Thicket
119	**Cane Break**			G2?	Widespread	
	Evergreen temporarily flooded shrubland	42 - Arundinaria gigantea ssp. gigantea Shrubland	CEGL003836	G2?	Widespread	Canebreak
120	**Riverine Sand/Mud Bar**			G5	Widespread	
	Deciduous temporarily flooded shrubland	46 - Salix exigua Temporarily Flooded Shrubland	CEGL001197	G5	Widespread	Sandbar Willow Shrubland
121	**Ozark Gravel Bar**			G?	Restricted	
	Deciduous temporarily flooded shrubland	44 - Hamamelis vernalis - Cornus amomum ssp. obliqua - Hypericum prolificum Shrubland	CEGL003898	G3	Restricted	Gravel Bar
	Deciduous temporarily flooded shrubland	45 - Salix caroliniana Temporarily Flooded Shrubland	CEGL007343	G?	Widespread	Gravel Wash
122	**Siliceous Rock Wash**			G4G5	Widespread	
	Semipermanently flooded perennial herbaceous (low)	73 - Justicia americana Herbaceous Vegetation	CEGL004286	G4G5	Widespread	Stream Gravel
	Rock wash (scour prairie)	91 - Siliceous (need description)				Siliceous Rock Wash

ID	Complex Name	Alliances	Gelcode	G-rank	Range	Comments
123	**Lotic Shoal**			G5	Widespread	
	Permanently flooded perennial herbaceous	75 - Podostemum ceratophyllum Herbaceous Vegetation	CEGL004331	G5	Widespread	Lotic Shoal
124	**Ozark Slough**					
	Permanently flooded perennial herbaceous	76 - Aquatic Slough - Upland (need description)				Ozark Slough
125	**Large River Slough**					
	Permanently flooded perennial herbaceous	77 - Aquatic Slough - Big River (need description)				Big River Slough
126	**Spring System**					
	Permanently flooded perennial herbaceous	78 - Ozark Spring Run (need description)				Spring Run
127	**Large River Sand Flat**			G4G5	Widespread	
	Sand flats sparse	92 - Riverine Sand Flats - Bars Sparse Vegetation	CEGL002049	G4G5	Widespread	Big River Sand Flat
128	**Large River Mud Flat**					
	Sand flats sparse	93 - Riverine Mud Flats - Bars Sparse Vegetation				Big River Mud Flat
129	**Streamside Fen**			G2G3	Endemic	
	Saturated perennial herbaceous (medium to tall)	62 - (Carex interior, Carex lurida) - Carex leptalea - Parnassia grandifolia - Rhynchospora capillacea Herbaceous Vegetation (streamside)	CEGL002404	G2G3	Endemic	Streamside Fen
130	**Floodplain Marsh**			G?	Restricted	
	Seasonally flooded perennial herbaceous (low)	74 - Polygonum amphibium - (Polygonum hydropiperoides) Seasonally Flooded Herbaceous Vegetation (not amphibium)	CEGL004699	G?	Restricted	Low Floodplain Mud Flat
131	**Freshwater Marsh**			G4G5	Widespread	
	Seasonally flooded perennial herbaceous (medium to tall)	59 - Scirpus tabernaemontani - Typha spp. - (Sparganium spp., Juncus spp.) Herbaceous Vegetation	CEGL002026	G4G5	Widespread	Freshwater Marsh
132	**Carbonate Rock Wash**					
	Rock wash (scour prairie)	90 - carbonate (need description)				Carbonate Rock Wash
133	**Sinkhole Pond Shrub Swamp**					
	Deciduous semipermanently flooded shrubland	48 - Cephalanthus occidentalis / Carex decomposita Sinkhole Shrubland				Pond Shrub Swamp
134	**Sinkhole Pond Marsh**			G3G4	Restricted	
	Semipermanently flooded perennial herbaceous (medium to tall)	60 - Carex comosa - Carex decomposita - Dulichium arundinaceum - Lycopus rubellus Herbaceous Vegetation (pond marsh)	CEGL002413	G3G4	Restricted	Pond Marsh
135	**Shrub Swamp**			G4	Widespread	
	Deciduous semipermanently flooded shrubland	49 - Cephalanthus occidentalis / Carex spp. - Lemna spp. Southern Shrubland	CEGL002191	G4	Widespread	Shrub Swamp
136	**Pond Swamp**			G1?	Restricted	
	Deciduous semipermanently flooded forest	21 - Nyssa aquatica / Cephalanthus occidentalis / Carex decomposita Forest	CEGL004712	G1?	Restricted	Pond Swamp

ID	Complex Name	Alliances	Gelcode	G-rank	Range	Comments
137	**Swamp**			G5	Widespread	
	Deciduous semipermanently flooded forest	22 - Taxodium distichum / Lemna minor Forest	CEGL002420	G5	Widespread	Swamp
138	**Forested Fen**			GU	Restricted	
	Deciduous saturated forest	23 - Acer rubrum - Fraxinus pennsylvanica / Carex spp. / Climacium americanum Fen Forest	CEGL002407	GU	Restricted	Forested Fen
139	**Acid Seep**			G2G3	Widespread	
	Saturated perennial herbaceous (medium to tall)	61 - Carex crinita - Osmunda spp. / Sphagnum spp. Herbaceous Vegetation	CEGL002263	G2G3	Widespread	Acid Seep Complex
140	**Saline Seep**					
	Eastern Great Plains Saline Marsh	102 - Distichlis spicata - Schoenoplectus maritimus - Salicornia rubra Herbaceous Vegetation	CEGL002043	G1G2	Restricted	Saline Seep
	Note: In the Ozarks, this community may be more closely related to Inland Saline Marsh [Schoenoplectus maritimus-Atriplex patula-Eleocharis parvula Semi-permanently Flooded Herbaceous Vegetation (CEGL005111)], which is not attributed to the Ozarks by TNC (1999).					
141	**Ozark Fen Complex**			G?	Widespread	
	Deciduous saturated shrubland	50 - Alnus serrulata Saturated Shrubland [Provisional] (?)	CEGL003912	G?	Widespread	Shrub Fen
	Saturated perennial herbaceous (medium to tall)	64 - Carex interior - Carex lurida - Juncus dudleyi Herbaceous Vegetation (deep muck - fen)				Ozark Fen/Deepmuck Fen
142	**Mesic Prairie**					
	Perennial herbaceous (medium to tall)	51 - Andropogon gerardii - Calamagrostis canadensis - Helianthus grosseseratus Herbaceous Vegetation (wet-mesic prairie) (change name)		G3	Widespread	
	Perennial herbaceous (medium to tall)	52 - Andropogon gerardii - Sorghastrum nutans Unglaciated Herbaceous Vegetation (Ozark mesic prairie)	CEGL002204	G3	Widespread	Ozark Mesic Prairie
143	**Riparian Wet Prairie**			G3?	Widespread	
	Temporarily flooded perennial herbaceous (medium to tall)	58 - Spartina pectinata - Carex spp. - Calamagrostis canadensis - Lythrum alatum - (Oxypolis rigidior) Herbaceous Vegetation	CEGL002224	G3?	Widespread	Floodplain Wet Prairie
144	**Prairie Fen**			G1G2	Endemic	
	Saturated perennial herbaceous (medium to tall)	63 - Carex interior - Carex lurida - Andropogon gerardii - Parnassia grandifolia Herbaceous Vegetation (prairie-fen)	CEGL002416	G1G2	Endemic	Prairie Fen
145	**Mesic Sand Prairie**					
	Mesic sand prairie (similar to comm. # 52, but not it in IL Ozarks)	96 - Schizachyrium scoparium-Sorghastrum nutans-Andropogon gerardii-Lespedeza capitata Sand Herbaceous Vegetation	CEGL002210	G3	Restricted	Mesic Sand Prairie
	Note: Ozark occurrences are a southern outlier of this type and may be a distinct community type.					
146	**Carbonate Upland Prairie**			G2G3	Widespread	
	Perennial herbaceous (medium to tall)	53 - Schizachyrium scoparium - Sorghastrum nutans - Bouteloua curtipendula Herbaceous Vegetation (dry-mesic)	CEGL002214	G2G3	Widespread	Dry/Dry-Mesic Carbonate Prairie

ID	Complex Name	Alliances	Gelcode	G-rank	Range	Comments
147	**Eastern Loess Hill Prairie**				Restricted	
	Perennial herbaceous (medium to tall)	54 - Schizachyrium scoparium - Sorghastrum nutans - Bouteloua curtipendula Loess Herbaceous Vegetation (capped-hill)	CEGL005183	G2	Restricted	Hill Prairie?
148	**Acid Upland Prairie**			G3	Endemic	
	Perennial herbaceous (medium to tall)	55 - Schizachyrium scoparium - Sorghastrum nutans - Danthonia spicata - Silene regia Chert Herbaceous Vegetation	CEGL002211	G3	Endemic	Siliceous Prairie Complex
149	**Hardpan Prairie**			G2?	Restricted	
	Perennial herbaceous (medium to tall)	56 - Schizachyrium scoparium - Bouteloua curtipendula - Agrostis hyemalis - Eleocharis spp. Hardpan Herbaceous Vegetation	CEGL002249	G2?	Restricted	Hardpan Prairie
150	**Illinois Glade = 152 Limestone Glade Complex**			G2	Endemic	
	Perennial herbaceous (medium to tall)	57 - Schizachyrium scoparium - Bouteloua curtipendula - Muhlenbergia cuspidata - Aster sericeus alkaline Herbaceous Vegetation (calcareous glade)	CEGL002403	G2	Endemic	Illinois Glade
151	**Igneous Glade Complex**			G2-G4?	Endemic	
	Wooded herbaceous (glades and savannas)	68 - Quercus marilandica - (Juniperus virginiana) / Schizachyrium scoparium - Danthonia spicata Wooded Herbaceous Vegetation	CEGL002428	G2	Widespread	Xeric/Dry Igneous Woodland
	Wooded herbaceous (glades and savannas)	71 - Schizachyrium scoparium - Sorghastrum nutans - Coreopsis lanceolata - Croton willdenowii Wooded Herbaceous Vegetation (igneous glade)	CEGL002243	G4?	Endemic	Igneous Glade
152	**Limestone Glade Complex**			G2	Endemic	
	Wooded herbaceous (glades and savannas)	66 - Schizachyrium scoparium - Bouteloua curtipendula - Rudbeckia missouriensis - Mentzelia oligosperma Wooded Herbaceous Vegetation	CEGL002251	G2	Endemic	Limestone Glade
153	**Dolomite Glade Complex**			G3	Endemic	
	Wooded herbaceous (glades and savannas)	67 - Schizachyrium scoparium - Sorghastrum nutans - Bouteloua curtipendula - Rudbeckia missouriensis - Hedyotis nigricans Wooded Herbaceous V.	CEGL002398	G3	Endemic	Dolomite Glade
154	**Sandstone Glade Complex**			G3	Endemic	
	Wooded herbaceous (glades and savannas)	69 - Schizachyrium scoparium - Aristida dichotoma - Croton willdenowii / Lichens Wooded Herbaceous Vegetation (sandstone glade) (AR-OK 111)	CEGL002242	G3	Endemic	Sandstone Glade
155	**Chert Glade Complex**					
	Wooded herbaceous (glades and savannas)	70 - Schizachyrium scoparium - Sedum pulchellum - Minuartia patula / Lichens Wooded Herbaceous Vegetation (chert glade)				
156	**Shale Glade, acid subtype**					
	Shale glade (if choose not to lump it w/ #30)	97 - Quercus marilandica (Juniperus virginiana)/Schizachyrium scoperium-Danthonia spicata Wooded Herbaceous Vegetation	CEGL002428	G2	Restricted	Shale Glade

ID	Complex Name	Alliances	Gelcode	G-rank	Range	Comments
157	**Igneous Talus**			G4	Endemic	
	Talus sparse	87 - Igneous Talus Interior Highlands Sparse Vegetation	CEGL005203	G4	Endemic	Igneous Talus
158	**Carbonate Talus**					
	Talus sparse	88 - Limestone - Dolomite Talus Sparse Vegetation				
159	**Sandstone Talus**			G4G5	Restricted	
	Talus sparse	89 - Sandstone Talus Southern Sparse Vegetation	CEGL002309	G4G5	Restricted	Sandstone Talus
160	**Dry Carbonate Cliff**			G3?-G5	Widespread	
	Boston mountain cliff line	72 - Hydrangea arborescens / Heuchera (americana var. hirsuticaulis, villosa var. arkansana) - Aquilegia canadensis Herbaceous Vegetation	CEGL007819	G3?		Boston Mountain Cliff (in part)
	Open cliff sparse	83 - Limestone/Dolostone Midwest Dry Cliff Sparse Vegetation	CEGL002291	G4G5	Widespread	Carbonate Cliff (in part)
161	**Moist Carbonate Cliff**			G3?-G5	Widespread	
	Boston mountain cliff line	72 - Hydrangea arborescens / Heuchera (americana var. hirsuticaulis, villosa var. arkansana) - Aquilegia canadensis Herbaceous Vegetation	CEGL007819	G3?		Boston Mountain Cliff (in part)
	Open cliff sparse	84 - Limestone/Dolostone Midwest Moist Cliff Sparse Vegetation	CEGL002292	G4G5	Widespread	Carbonate Cliff (in part)
162	**Moist Siliceous Cliff**			G2-G5	Endemic	
	Open cliff sparse	80 - Chert Moist Cliff Sparse Vegetation	CEGL002288	G2G3	Endemic	Moist Chert Cliff
	Open cliff sparse	82 - Igneous Moist Cliff Sparse Vegetation	CEGL002289	G4Q	Endemic	Moist Igneous Cliff
	Open cliff sparse	86 - Sandstone Moist Cliff Sparse Vegetation	CEGL002287	G4G5	Widespread	Moist Sandstone Cliff
163	**Dry Siliceous Cliff**			G3?-G5	Endemic	
	Open cliff sparse	79 - Chert Dry Cliff Sparse Vegetation	CEGLOO2285	G3?	Endemic	Dry Chert Cliff
	Open cliff sparse	81 - Igneous Dry Cliff Sparse Vegetation	CEGL002286	G4	Endemic	Dry Igneous Cliff
	Open cliff sparse	85 - Sandstone Dry Cliff Sparse Vegetation	CEGL005257	G4G5	Widespread	Dry Sandstone Cliff
164	**Cave**					
165	**Aquatic Cave**					
166	**Creek/Headwater Stream**					
167	**Small River**					
168	**Large River**					

Appendix 1C. Extirpated Species Targets

This appendix enumerates species that have been documented from the Ozarks, but no longer occur within the ecoregion. Included here are both taxa that have become globally extinct, and taxa that have been locally extirpated from the Ozarks, but are still extant elsewhere.

Gelcode	Scientific Name	Common Name	G-rank	Taxa Type
ABNKC22010	AQUILA CHRYSAETOS	GOLDEN EAGLE	G5	Bird
ABNQA05010	CONUROPSIS CAROLINENSIS	CAROLINA PARAKEET	GX	Bird
ABPAV10110	CORVUS CORAX	NORTHERN RAVEN	G5	Bird
ABNPB05010	ECTOPSTES MIGRATORIUS	PASSENGER PIGEON	GX	Bird
ABNKC04010	ELANOIDES FORFICATUS	AMERICAN SWALLOW-TAILED KITE	G5	Bird
ABNKD06070	FALCO PEREGRINUS	PEREGRINE FALCON	G4	Bird
ABNKC01010	PANDION HALIAETUS	OSPREY	G5	Bird
ABNYF07060	PICOIDES BOREALIS	RED-COCKADED WOODPECKER	G3	Bird
AFCJC10200	LOGACHILA LACERA/ MOXOSTOMA LACERUM	HARELIP SUCKER	GX	Fish
ICMAL05480	STYGOBROMUS HETEROPODUS	PICKLE SPRINGS AMPHIPOD	G1G3	Invertebrate-Amphipod
IICOL41010	LORDITHON NIGER	BLACK LORDITHON ROVE BEETLE	G1	Invertebrate-Insect
IICOL69010	RHADINE OZARKENSIS	A CAVE BEETLE	GH	Invertebrate-Insect
IILEYMP130	SCHINIA INDIANA	PHLOX MOTH	GU	Invertebrate-Insect
IIORTA101001	SPHARAGEMON SUPERBUM	SUPERB SPHARAGEMON GRASSHOPPER	GH	Invertebrate-Insect
IMBIV16061	EPIOBLASMA FLORENTINA CURTISI	CURTIS PEARLYMUSSEL	G1T1	Invertebrate-Mussel
IMBIV16200	EPIOBLASMA TURGIDULA	TURGID BLOSSOM	GH	Invertebrate-Mussel
IMBIV43010	TOXOLASMA CORVUNCULUS	SOUTHERN PURPLE LILLIPUT	GH	Invertebrate-Mussel
IMGAS78040	PARAVITREA AULACOGYRA	STRIATE SUPERCOIL	GH	Invertebrate-Snail
IMGASJ2070	SOMATOGYRUS CRASSILABRIS	THICKLIPPED PEBBLESNAIL	GX	Invertebrate-Snail
AMALE01012	BOS BISON BISON	BISON	G4TU	Mammal
AMAJA01020	CANIS RUFUS	RED WOLF	G1	Mammal
AMACC08020	CORYNORHINUS RAFINESQUII	RAFINESQUE'S BIG-EARED BAT	G3G4	Mammal
AMAJH0401001	FELIS CONCOLOR	MOUNTAIN LION	G5	Mammal

Gelcode	Scientific Name	Common Name	G-rank	Taxa Type
NLLEC5N180	UMBILICARIA MAMMULATA	A LICHEN	G4G5	Plant-Lichen
PPASP020U0	ASPLENIUM MONTANUM	MOUNTAIN SPLEENWORT	G5	Plant-Vascular
PDMAL0A080	CALLIRHOE TRIANGULATA	CLUSTERED POPPY MALLOW	G3	Plant-Vascular
PMCYP03CC0	CAREX SEORSA	A SEDGE	G4	Plant-Vascular
PPADI09070	CHEILANTHES EATONII	EATON'S LIPFERN	G5?	Plant-Vascular
PDFAB1D100	DESMODIUM OCHROLEUCUM	CREAMFLOWER TICK-TREFOIL	G2G3	Plant-Vascular
PMCYP090N0	ELEOCHARIS EQUISETOIDES	HORSETAIL SPIKERUSH	G4	Plant-Vascular
PDAPI16010	HYDROCOTYLE AMERICANA	A PENNYWORT	G5	Plant-Vascular
PMORC1F010	ISOTRIA MEDEOLOIDES	SMALL WHORLED POGONIA	G2	Plant-Vascular
PMORC1Y0F0	PLATANTHERA LEUCOPHAEA	EASTERN PRAIRIE WHITE FRINGED ORCHID	G2	Plant-Vascular
PMORC1Y0F0	PLATANTHERA LEUCOPHAEA	EASTERN PRAIRIE FRINGED ORCHID	G2	Plant-Vascular
PMORC1Y0S0	PLATANTHERA PRAECLARA	WESTERN PRAIRIE FRINGED ORCHID	G2	Plant-Vascular
PMALI04010	SAGITTARIA AMBIGUA	KANSAS ARROWHEAD	G2?	Plant-Vascular
PMCYP0Q02002	SCHOENOPLECTUS AMERICANUS	A BULRUSH	G5	Plant-Vascular
PMCYP0Q1J0	SCIRPUS TORREYI	TORREY'S BULRUSH	G5?	Plant-Vascular

Appendix 2. Community Matrix Table, Patterns of Natural Community Type by Subsection

Target		Subsection																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Number	Description	Springfield Plateau	Springfield Plain	White River Hills	Elk River Hills	Lower Boston Mountains	Upper Boston Mountains	Central Plateau	Osage Hills	Gasconade Hills	Meramec River Hills	Current River Hills	St. Francois Knobs	Inner Border	Outer Border	Illinois Ozarks	Prairie Border	Missouri Alluvial	Mississippi River Alluvial	Black River Border
103	Shortleaf Pinery Complex	SP		LP	LP	M	M			LP	LP	M	SP	LP		SP				M
104	Acid Deciduous Woodland Complex	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M			M
105	High Base Deciduous Woodland Complex	SP	M	LP	LP	SP?	SP?	SP	LP	LP	LP	SP	SP	SP	LP	LP				
106	Pine-Oak Woodland Complex	M?		M	M	M	M			M	M	M	M	M		SP				M
107	Ashe Juniper Woodland			SP	SP															
108	Rock Chestnut Oak															LP?				
109	Upland Flatwoods							LP					SP (H)			SP				LP
110	Mesophytic Deciduous Woodland Complex	LP	SP	LP	LP	LP	LP	SP	LP	LP	LP	LP	SP	LP	LP	LP				SP
111	Mesophytic Deciduous Woodland Complex - Beech Phase					SP?	SP?								LP	LP				LP?
112	Ozark Riparian Woodland Complex	LP	LP	LP	LP	LP	LP	LP	LP	LP	LP	LP	LP	LP	LP	LP	LP			LP
113	Mesophytic Bottomland Woodland Complex	SP	SP	SP	SP	SP?	SP?	SP	SP	SP	SP	SP	SP	SP	SP	LP		SP?	LP	SP
114	Large River Riparian Woodland Complex																	M	LP	SP
115	Hydric Flatwoods							LP?				SP								M
116	Southern Flatwoods			SP?								SP								
117	Overcup Pond Forest					SP	SP?													
118	Alder Thicket	SP	SP?	SP	SP?	SP	SP	SP?	SP	SP	SP	SP	SP	SP?	SP					SP
119	Cane Break	SP	SP?	SP	SP?	SP	SP					SP							SP	
120	Riverine Sand/Mud Bar																	SP	SP	
121	Ozark Gravel Bar	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP				SP
122	Siliceous Rock Wash	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP			SP
123	Lotic Shoal			SP?		SP	SP	SP?												
124	Ozark Slough	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP			
125	Large River Slough																	LP	LP	
126	Spring System	SP?	SP	SP	SP	SP?	SP?	SP	SP	SP	SP	SP				SP				SP
127	Large River Sand Flat																	SP	SP	
128	Large River Mud Flat																	SP	SP	
129	Streamside Fen			SP				SP	SP	SP	SP	SP	SP							SP
130	Floodplain Marsh																	SP	SP	
131	Freshwater Marsh																	SP	SP	SP (H)

SP=small patch, LP=large patch, M=matrix, H=historic condition, ?= unverified in subsection, but probably present at least historically

Target		Subsection																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Number	Description	Springfield Plateau	Springfield Plain	White River Hills	Elk River Hills	Lower Boston Mountains	Upper Boston Mountains	Central Plateau	Osage Hills	Gasconade Hills	Meramec River Hills	Current River Hills	St. Francois Knobs	Inner Border	Outer Border	Illinois Ozarks	Prairie Border	Missouri Alluvial	Mississippi River Alluvial	Black River Border
132	Carbonate Rock Wash	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP				SP
133	Sinkhole Pond Shrub Swamp		SP					SP				SP			SP(H)	SP				
134	Sinkhole Pond Marsh		SP	SP				SP				SP								SP
135	Shrub Swamp	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP		SP	LP	SP
136	Pond Swamp											SP								
137	Swamp																		SP	
138	Forested Fen	?	SP?					SP?				SP	SP							
139	Acid Seep	SP	SP			SP?	SP?						SP	SP						
140	Saline Seep																			
141	Ozark Fen Complex							SP?		SP	SP	SP								SP
142	Mesic Prairie	SP	SP					SP							SP		SP		M(h)	
143	Riparian Wet Prairie							SP (H)							SP (H)			LP (H)	M	
144	Prairie Fen		SP	SP								SP	SP							
145	Mesic Sand Prairie															SP				
146	Carbonate Upland Prairie	LP?	LP					SP							LP	LP	SP			
147	Eastern Loess Hill Prairie														SP	SP				
148	Acid Upland Prairie	M	M	LP								LP					M			
149	Hardpan Prairie	LP	LP																	
151	Igneous Glade Complex											LP	LP			SP				
152	Limestone Glade Complex		LP	SP	SP	SP	SP?	SP?							SP	SP				
153	Dolomite Glade Complex			M	LP			SP	SP	SP	SP	SP	SP	LP	SP		SP			SP
154	Sandstone Glade Complex	?	LP			SP?	SP?		SP	SP				SP	SP	SP				SP
155	Chert Glade Complex		SP									?	?							
156	Shale Glade, Acid Subtype															SP				
157	Igneous Talus											SP	SP							
158	Carbonate Talus	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP				SP
159	Sandstone Talus					SP?	SP?													
160	Dry Carbonate Cliff	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP			SP	SP
161	Moist Carbonate Cliff	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP			SP	SP
162	Moist Siliceous Cliff	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP				
163	Dry Siliceous Cliff	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP				

SP=small patch, LP=large patch, M=matrix, H=historic condition, ?= unverified in subsection, but probably present at least historically

Appendix 3. Species and Community Target Capture Data

The following appendices list the number of primary target occurrences captured by portfolio sites as well as habitat and range information for the secondary species targets. Appendices include: A- primary species, B- secondary species, C- small patch and large patch terrestrial communities, D- karst communities, and E- aquatic communities. Appendices A and C also show the goal for each target as discussed in text Section 4- Conservation Goals. Many targets did not reach the numeric capture goal established for the target. The three most common reasons were: gaps in basic human knowledge base, gaps or inconsistencies in heritage tracking, and biological inventory intensity and completeness issues. The following notations have been placed in comments field of Appendix A as appropriate:

D - Significant *data* gaps exist regarding target distribution, viability, and/or conservation status.

C – Target is not consistently tracked and is known to be more *common* than data indicates.

M – Target is tracked but *multiple* occurrences exist that are not well represented in data.

A – *All* known viable occurrences are captured.

Appendix 3A. Primary Species Target Capture

G-rank	Target Class	Scientific Name	Common Name	Goal	Capture	Comments
G2	R	ACRONEURIA OZARKENSIS	A PERLID STONEFLY	2	2	
G?	OZ	AGAPETUS ARTESUS	ARTESIAN AGAPETUS CADDISFLY	10	3	D
G?	MOD	AGAPETUS MEDICUS	ARKANSAS AGAPETUS CADDISFLY	10	0	D
G5T5	OZ	AGKISTRODON CONTORTRIX PHAEOGASTER	OSAGE COPPERHEAD	10	1	C- Captured in all landscape terrestrial areas
G2	OZ	ALLOCAPNIA JEANAE	WINTER STONEFLY	10	2	D
G1	OZ	ALLOCAPNIA ORIBATA	WINTER STONEFLY	10	1	D
G2	OZ	ALLOCAPNIA OZARKANA	WINTER STONEFLY	10	1	D
G1G3	OZ	ALLOCRANGONYX HUBRICHTI	CENTRAL MISSOURI CAVE AMPHIPOD	10	7	A
G5	OZ	AMBLOPLITES CONSTELLATUS	OZARK BASS	10	6	M
G2G3	OZ	AMBLYOPSIS ROSAE	OZARK CAVEFISH	10	16	
G2G3	MOD	AMBLYSCIRTES LINDA	LINDA'S ROADSIDE SKIPPER	10	2	D
G?	OZ	AMBLYTROPIDIA MYSTECA	GLADE GRASSHOPPER	10	1	D
G4	OZ	AMBYSTOMA ANNULATUM	RINGED SALAMANDER	10	9	C
G1	OZ	AMNICOLA CORA	FOUSHEE CAVESNAIL	10	1	A- Only known site
G1	OZ	AMNICOLA STYGIUS	STYGIAN CAVESNAIL	10	2	D- Known from other springs and caves Perry/Cape Girardeau counties with uncertain viability
G4	MOD	ANDRACHNE PHYLLANTHOIDES	MISSOURI BUCK-BRUSH	10	4	M
G1	OZ	ANTROBIA CULVERI	TUMBLING CREEK CAVESNAIL	10	1	A- Only known site
G1G2	OZ	APOCHTHONIUS COLECAMPI	CAVE PSEUDOSCORPION	10	0	D- Only known from one cave in Benton County, viability uncertain
G1G2	OZ	APOCHTHONIUS MYSTERIUS	CAVE PSEUDOSCORPION	10	1	D- Only known site
G1G2	OZ	APOCHTHONIUS TITANICUS	CAVE PSEUDOSCORPION	10	1	D- Only known site
G1G2	OZ	APOCHTHONIUS TYPHLUS	CAVE PSEUDOSCORPION	10	2	D- Only known site
G2G3	R	ARRHOPALITES CAROLYNAE	CAVE SPRINGTAIL	2	1	D- Only viable site
G2	R	ARRHOPALITES HIRTUS	CAVE SPRINGTAIL	2	1	D- Only viable site
G2	R	ASCLEPIAS MEADII	MEAD'S MILKWEED	2	7	
G4G5	MOD	ASTER ANOMALUS	MANY-RAY ASTER	10	0	C- Abundant in woodland sites
G3G5	MOD	ASTER TURBINELLUS	PRAIRIE ASTER	10	0	C- Abundant in woodland sites
G4G5TU	MOD	AUREOLARIA GRANDIFLORA CINEREA	BIG-FLOWERED GERARDIA	10	7	C- Common in wooded upland sites of the western Ozarks
--	OZ	BACTRURUS PSEUDOMUCRONATUS	CAVE AMPHIPOD	10	8	D- Viability uncertain at other known sites
--	OZ	BATRACOBDELLA CRYPTOBRANCHII	OZARK HELLBENDER LEECH	10	2	D
G4	OZ	BLARINA HYLOPHAGA	ELLIOT'S SHORT-TAILED SHREW	10	0	D- Viability and distribution uncertain
G2	R	BOLTONIA DECURRENS	DECURRENT FALSE ASTER	2	2	
G5T5	OZ	BUFO AMERICANUS CHARLESMITHI	DWARF AMERICAN TOAD	10	3	D
G2G3	OZ	CAECIDOTEA ANCYLA	ISOPOD	10	6	A
G3G4	OZ	CAECIDOTEA ANTRICOLA	ISOPOD	10	29	
G1G3	OZ	CAECIDOTEA DIMORPHA	ISOPOD	10	2	A
G3	OZ	CAECIDOTEA FUSTIS	ISOPOD	10	3	D- Viability uncertain at other known sites
G1G3	R	CAECIDOTEA MACROPODA	BAT CAVE ISOPOD	2	0	D- One known site in Oklahoma with viability uncertain

G-rank	Target Class	Scientific Name	Common Name	Goal	Capture	Comments
G2G3	OZ	CAECIDOTEA OCULATA	ISOPOD	10	1	A- Only known site
G?	OZ	CAECIDOTEA SALAMENSIS	ISOPOD	10	7	D- Viability uncertain at other known sites
G1G2	OZ	CAECIDOTEA SERRATA	ISOPOD	10	1	A- Only known site
G2G4	OZ	CAECIDOTEA STEEVESI	ISOPOD	10	1	A- Only viable site
G2G3	OZ	CAECIDOTEA STILADACTYLA	ISOPOD	10	6	A- All viable sites
G3	MOD	CALLIRHOE BUSHII	BUSH'S POPPY MALLOW	10	1	
G4	MOD	CALLIRHOE DIGITATA	FRINGED POPPY MALLOW	10	3	C
G1	OZ	CAMBARUS ACULABRUM	TROGLOBITIC CRAYFISH	10	2	A- All known sites
G1	OZ	CAMBARUS CAUSEYI	BOSTON MOUNTAINS CRAYFISH	10	1	A- Only known multi-site cluster
G5	OZ	CAMBARUS HUBBSI	HUBB’S CRAYFISH	10	8	M
G2	OZ	CAMBARUS HUBRICHTI	SALEM CAVE CRAYFISH	10	10	
G4	OZ	CAMBARUS MACULATUS	FRECKLED CRAYFISH	10	3	M
G2	OZ	CAMBARUS SETOSUS	BRISTLY CAVE CRAYFISH	10	10	
G1	OZ	CAMBARUS SUBTERRANEUS	BLIND CAVE CRAYFISH	10	2	A- Viability uncertain for additional sites
G1	OZ	CAMBARUS TARTARUS	OKLAHOMA CRAYFISH	10	1	A- Only known site
G1	OZ	CAMBARUS ZOPHONASTES	HELL CREEK CAVE CRAYFISH	10	1	A- Only known site
G5	MOD	CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	10	22	
G5	MOD	CAPRIMULGUS CAROLINENSIS	CHUCK-WILL’S-WIDOW	10	15	Common species in woodland landscape sites
G5	MOD	CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	10	18	Common species in woodland landscape sites
G3G4Q	MOD	CAREX FISSA VAR FISSA	A SEDGE	10	1	D- Probably more common, but poorly known
G5T5	OZ	CARPHOPHIS VERMIS	WESTERN WORM SNAKE	10	1	C
G5T3	MOD	CASTANEA PUMILA VAR OZARKENSIS	OZARK CHINQUAPIN	10	16	
G?	OZ	CHAETOCNEMA ELONGATULA	LEAF BEETLE	10	1	D
G5	MOD	CLEMATIS FREMONTII	FREMONT'S LEATHER FLOWER	10	11	
G4?	MOD	CLEMATIS VERSICOLOR	MANY-COLOR VIRGIN'S BOWER	10	3	D- Distribution uncertain
G5	MOD	CONTOPUS VIRENS	EASTERN WOOD PEWEE	10	21	Common species in woodland landscape sites
G4T1	OZ	CORYNORHINUS TOWNSEDII INGENS	OZARK BIG-EARED BAT	10	10	
G5	MOD	COTTUS CAROLINAE	BANDED SCULPIN	10	24	
G4	OZ	COTTUS HYPSELURUS	OZARK SCULPIN	10	18	
G1G2	OZ	CROSBYELLA DISTINCTA	CAVE HARVESTMAN	10	1	A- Only known site
G4T3	OZ	CRYTOBRANCHUS ALLEGANIENSIS BISHOPI	OZARK HELLBENDER	10	6	M- Population inventory methods needed improvement
G2G3	R	CUMBERLANDIA MONODONTA	SPECTACLECASE	2	18	
G5	MOD	CYPRINELLA CAMURA (NOTROPIS)	BLUNTFACE SHINER	10	7	MC
G5	MOD	CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	10	11	
G2	OZ	CYPROGENIA ABERTI	WESTERN FANSHELL	10	18	
G1	OZ	DANNELLA PROVONSHAI (TIMPANOGA)	MAYFLY	10	0	D- Distribution uncertain
G3	OZ	DELPHINIUM NEWTONIANUM	MOORE'S LARKSPUR	10	12	
G3	OZ	DELPHINIUM TRELEASEI	TRELEASE'S LARKSPUR	10	14	
G3G4	OZ	DENDROCOELOPSIS AMERICANA	CAVE PLANARIAN	10	2	D- Oklahoma distribution and viability uncertain
G1G2Q	DJ	DESMODIUM HUMIFUSUM	TRAILING TICK-TREFOIL	2	2	

G-rank	Target Class	Scientific Name	Common Name	Goal	Capture	Comments
G3	MOD	DODECATHEON FRENCHII	FRENCH'S SHOOTING STAR	10	11	
G3	MOD	DRABA APRICA	WHITLOW GRASS	10	11	
G2	OZ	ECHINACEA PARADOXA	BUSH'S YELLOW CONEFLOWER	10	6	C- Captured on MO glades but not tracked
G5	OZ	ELIMIA POTOSIENSIS	PYRAMID ELIMIA	10	21	
G1G2	R	EREBOMASTER FLAVESCENS	CAVE HARVESTMAN	2	0	D- Distribution and viability uncertain
G3G4Q	OZ	ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	10	10	
G5T?	MOD	ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	10	17	
G2	DJ	ERIOCAULON KOERNICKIANUM	SMALL-HEADED PIPEWORT	2	10	
G4T3T4	MOD	ERIOGONUM LONGIFOLIUM VAR LONGIFOLIUM	UMBRELLA PLANT	10	1	
G5T4	MOD	ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	10	21	
G5T4	MOD	ETHEOSTOMA BLENNIOIDES NEWMANII (AR RACE)	GREENSIDE DARTER	10	4	M
G4	OZ	ETHEOSTOMA BURRI	BROOK DARTER	10	1	M
G5T3?	OZ	ETHEOSTOMA CAERULEUM (LITTLE RED SUBSP.)	RAINBOW DARTER	10	1	M
G5T3?	OZ	ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	10	10	
G4T2?	OZ	ETHEOSTOMA EUZONUM ERIZONUM	CURRENT RIVER SADDLED DARTER	10	2	M
G3G4	OZ	ETHEOSTOMA EUZONUM EUZONUM	ARKANSAS SADDLED DARTER	10	8	M
G5	OZ	ETHEOSTOMA FLABELLARE (WHITE RIVER FORM)	WHITE RIVER FANTAIL DARTER	10	2	M
G4	OZ	ETHEOSTOMA FRAGI	STRAWBERRY RIVER DARTER	10	1	M
G4?	OZ	ETHEOSTOMA JULIAE	YOKE DARTER	10	3	M
G5T?	OZ	ETHEOSTOMA MICROPERCA OZARKANUS	OZARK LEAST DARTER	10	9	M
G1	OZ	ETHEOSTOMA MOOREI	YELLOWCHEEK DARTER	10	1	M
G2	OZ	ETHEOSTOMA NIANGUAE	NIANGUA DARTER	10	5	M
G4	OZ	ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	10	20	
G5?	OZ	ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	10	9	M
G4	OZ	ETHEOSTOMA UNIPORUM	CURRENT ORANGETHROAT DARTER	10	6	M
G5	MOD	ETHEOSTOMA ZONALE	BANDED DARTER	10	21	
G5T?	OZ	ETHEOSTOMA ZONALE (BLACK RIVER RACE)	BLACK RIVER BANDED DARTER	10	4	M
G5T5	OZ	EUMECES ANTHRACINUS PLUVIALIS	SOUTHERN COAL SKINK	10	0	C- May be a modal species
G5T4	OZ	EURYCEA LONGICAUDA MELANOPLEURA	DARK-SIDED SALAMANDER	10	0	C- Undoubtedly occurring in dozens of portfolio caves
G4T4	OZ	EURYCEA MULTIPLICATA GRISEOGASTER	GRAYBELLY SALAMANDER	10	5	C
G4T4	OZ	EURYCEA MULTIPLICATA MULTIPLICATA	MANY-RIBBED SALAMANDER	10	0	D- Distribution and viability uncertain.
G3	OZ	EURYCEA TYNERENSIS	OKLAHOMA SALAMANDER	10	19	Occurs in MO but isn't tracked by Heritage
G3G4	MOD	FONTIGENS ALDRIICHI	HOOSIER AMNICOLA	10	10	
G2	R	FONTIGENS ANTROECETES	ENIGMATIC CAVESNAIL	2	4	
G1	R	FONTIGENS PROSERPINA	PROSERPINE CAVESNAIL	2	1	D- Viability uncertain for additional sites
--	MOD	FONTINALIS WELCHII	A MOSS	10	0	D- Distribution uncertain
G5	MOD	FUNDULUS CATENATUS	NORTHERN STUDFISH	10	24	
G3	MOD	FUSCONAIA OZARKENSIS	OZARK PIGTOE	10	12	

G-rank	Target Class	Scientific Name	Common Name	Goal	Capture	Comments
G5	MOD	GALIUM ARKANSANUM	ARKANSAS BEDSTRAW	10	0	C- Common in upland woods
G1G2	R	GAMMARUS ACHERONDYTES	ILLINIOS CAVE AMPHIPOD	2	4	
G2	MOD	GEOCARPON MINIMUM	GEOCARPON	10	10	
G5T?	OZ	GEOMYS BURSANUS OZARKENSIS	OZARK POCKET GOPHER	10	0	D- Taxonomic and distribution questions
G1G3	OZ	GLYPHOPSYCHE MISSOURI	MISSOURI GLYPHOPSYCHE CADDISFLY	10	1	A- Only known site
G4	OZ	GOMPHUS OZARKENSIS	OZARK CLUBTAIL DRAGONFLY	10	1	D
G4?	MOD	HAMAMELIS VERNALIS	OZARK WITCH-HAZEL	10	0	C- Common in upland waterways
G4T3T4	MOD	HEUCHERA PARVIFLORA VAR PUBERULA	LITTLE-LEAVED ALUMROOT	10	6	C
G5T3Q	OZ	HEUCHERA VILLOSA VAR ARKANSANA	ARKANSAS ALUMROOT	10	10	
G?	OZ	HYDROPSYCHE PIATRIX	NET-SPINNING CADDISFLY	10	5	D
G5	MOD	HYLOCICHLA MUSTELINA	WOOD THRUSH	10	14	
G1	R	ISLANDIANA SPEOPHILA	CAVERN SHEET-WEB SPIDER	2	2	
G5T5	OZ	LAMPROPELTIS CALLIGASTER CALLIGASTER	PRAIRIE KINGSNAKE	10	0	C- Common species
G5T5	OZ	LAMPROPELTIS TRIANGULUM SYSPILA	RED MILK SNAKE	10	1	C
G2	R	LAMPSILIS ABRUBTA	PINK MUCKET	2	10	
G2	OZ	LAMPSILIS RAFINESQUEANA	NEOSHO MUCKET	10	4	M
G3T2	OZ	LAMPSILIS REEVIANA BREVICULA	BROKEN RAYS	10	10	
G3T2	OZ	LAMPSILIS REEVIANA BRITTSI	BRITTS MUSSEL	10	8	M
G3T1T2	OZ	LAMPSILIS REEVIANA REEVIANA	REEVE'S MUSSEL	10	1	M
G1Q	OZ	LAMPSILIS STRECKERI	SPECKLED POCKETBOOK	10	1	M
G1	MOD	LEPTODEA LEPTODON	SCALESHELL	10	7	M
G1	OZ	LEPTOXIS ARKANSENSIS	ARKANSAS MUDALIA	10	1	M
G3	OZ	LESQUERELLA FILIFORMIS	MISSOURI BLADDER-POD	10	11	
G3Q	MOD	LIRCEUS BICUPIDATUS	ISOPOD	10	1	D
G1?	OZ	LIRCEUS BIDENTATUS	ISOPOD	10	0	D
G4?	OZ	LUXILUS CARDINALIS (NOTROPIS)	CARDINAL SHINER	10	6	M
G5?	OZ	LUXILUS PILSBRYI (NOTROPIS)	DUSKYSTRIPE SHINER	10	6	M
G5?	MOD	LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	10	19	
G1G3	R	MACROCOTYLA GLANDULOSA	PINK PLANARIAN	2	1	A- Only known site
G1G2	OZ	MACROCOTYLA LEWISI	LEWIS' PLANARIAN	2	2	
G3	MOD	MATELEA BALDWYNIANA	BALDWIN'S MILKVINE	10	10	
G2G3	R	MICROMENETUS SAMPSONI	A SNAIL	2	2	
G?	OZ	MILLERELIX PEREGRINA (POLYGRYA)	WHITE LIPTOOTH	10	0	D
G5	MOD	MNIOTILTA VARIA	BLACK-AND-WHITE WARBLER	10	11	
G4	MOD	MOXOSTOMA CARINATUM	RIVER REDHORSE	10	20	
G3G4	OZ	MUNDOCHTHONIUS CAVERNICOLUS	TROGLOBITIC PSEUDOSCORPION	10	1	D- Distribution uncertain
G3	MOD	MYOTIS GRISESCENS	GRAY BAT	10	45	
G2	R	MYOTIS SODALIS	INDIANA BAT	2	27	
G4	MOD	NEMASTYLIS NUTTALLII	CELESTIAL LILY	10	8	M
G?	OZ	NEOCHLAMISUS TUBERCULATUS	LEAF BEETLE	10	0	D
G3	OZ	NEOPERLA FALAYAH	STONEFLY	10	0	D- Distribution uncertain
G3	OZ	NEOPERLA OSAGE	STONEFLY	10	0	D- Distribution uncertain

G-rank	Target Class	Scientific Name	Common Name	Goal	Capture	Comments
G5T3?	OZ	NEOTOMA FLORIDANA OSAGENSIS	OSAGE WOODRAT	10	15	Subspecific taxonomy and distribution uncertain
G?	OZ	NEOTRICHIA KITAE	KITE'S NEOTRICHIAN CADDISFLY	10	0	D- Distribution uncertain
G2	R	NEVIUSIA ALABAMENSIS	SNOW WREATH	2	3	
G1	R	NICROPHORUS AMERICANUS	AMERICAN BURYING BEETLE	2	2	
G3G4?	MOD	NOCOMIS ASPER	REDSPOT CHUB	10	5	M
G5?	MOD	NOTROPIS GREENEI	WEDGESPOT SHINER	10	21	
G5?	MOD	NOTROPIS NUBILUS	OZARK MINNOW	10	25	
G3	OZ	NOTROPIS OZARCANUS	OZARK SHINER	10	11	
G2	R	NOTROPIS TOPEKA	TOPEKA SHINER	2	2	
G4?	OZ	NOTURUS ALBATER	OZARK MADTOM	10	11	
G5	MOD	NOTURUS EXILIS	SLENDER MADTOM	10	26	
G3G4	OZ	NOTURUS FLAVATER	CHECKERED MADTOM	10	8	M
G2	OZ	NOTURUS PLACIDUS	NEOSHO MADTOM	10	4	M
G1G2	DJ	OBOVARIA JACKSONIANA	SOUTHERN HICKORYNUT	2	3	
G?	OZ	OCHROTRICHIA CONTORTA	CONTORTED OCHROTRICHIAN MICRO CADDISFLY	10	1	D
G1G2	OZ	ONCOPODURA HOFFI	SPRINGTAIL	10	2	A- All known sites captured
G4G5T?	MOD	ONOSMODIUM MOLLE SUBSETOSUM	FALSE GROMWELL	10	0	D- Widely distributed, distribution uncertain
G3	OZ	OPHIOGOMPHUS WESTFALLI	OZARK SNAKETAIL DRAGONFLY	10	1	D
G2	OZ	ORCONECTES EUPUNCTUS	COLDWATER CRAYFISH	10	2	M
G3	OZ	ORCONECTES HARRISONII	BELTED CRAYFISH	10	2	M
G4	OZ	ORCONECTES HYLAS	WOODLAND CRAYFISH	10	1	M
G4	OZ	ORCONECTES LONGIDIGITUS	LONG-PINCERED CRAYFISH	10	4	M
G5	MOD	ORCONECTES LUTEUS	GOLDEN CRAYFISH	10	18	
G4	OZ	ORCONECTES MACRUS	NEOSHO MIDGET CRAYFISH	10	3	M
G2	OZ	ORCONECTES MARCHANDI	MAMMOTH SPRING CRAYFISH	10	1	M
G4	OZ	ORCONECTES MEDIUS	SADDLEBACK CRAYFISH	10	2	M
G4?	OZ	ORCONECTES MEEKI	MEEK'S CRAYFISH	10	1	D
G5	MOD	ORCONECTES NEGLECTUS	RINGED CRAYFISH	10	6	M
G5T2	OZ	ORCONECTES NEGLECTUS CHAENODACTYLUS	GAPE-FINGERED RINGED CRAYFISH	10	2	M
G4	OZ	ORCONECTES OZARKAE	OZARK CRAYFISH	10	13	
G2	OZ	ORCONECTES PERUNCUS	BIG CREEK CRAYFISH	10	2	M
G4G5?	OZ	ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	10	19	
G2	OZ	ORCONECTES QUADRUNCUS	ST. FRANCIS CRAYFISH	10	1	M
G?	OZ	ORCONECTES STYGOCANEYI	CANEY MOUNTAIN CAVE CRAYFISH	10	1	A- Only known site
G2	OZ	ORCONECTES WILLIAMSI	WILLIAMS' CRAYFISH	10	2	D
G1?	OZ	PADUNIELLA NEARCTICA	NEARTIC PADUNIELLAN CADDISFLY	10	6	D
G4G5	MOD	PANICUM MALACOPHYLLUM	SHORT-LEAF WITCHGRASS	10	0	C- Not tracked, viability within distribution uncertain; common in open woodlands
G1	R	PANORPA BRAUERI	A PANORPID SCORPIONFLY	2	0	D- Distribution and viability uncertain.
G3	OZ	PAPILIO JOANAE	OZARK SWALLOWTAIL	10	0	D- Scattered populations throughout the Ozarks

G-rank	Target Class	Scientific Name	Common Name	Goal	Capture	Comments
G?	OZ	PARDALOPHORA SAUSSUREI	GLADE GRASSHOPPER	10	1	D
G5T4	MOD	PARTHENIUM INTEGRIFOLIUM HISPIDUM	HISPID FEVERFEW	10	0	D- Distribution uncertain
G1	MOD	PATERA CLENCHI (MESODON)	CALICO ROCK OVAL	10	1	D- Distribution uncertain
G5	MOD	PENSTEMON ARKANSANUS	ARKANSAS BEARDTONGUE	10	4	C- Distribution in White River Glade region
G4T	OZ	PENSTEMON COBAEA PURPUREUS	PURPLE BEARD-TONGUE	10	32	
G?	OZ	PENTACORA SIGNORETI	SHORE BUG	10	2	A- All known sites captured
G2	OZ	PERCINA CYMATOTAENIA	BLUESTRIPE DARTER	10	9	M
G4T?	OZ	PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	10	14	
G3	MOD	PERCINA NASUTA	LONGNOSE DARTER	10	4	M
G3	OZ	PERLESTA FUSCA	STONEFLY	10	0	D- Distribution and viability uncertain
G5	OZ	PHACELIA GILIOIDES	BRAND PHACELIA	10	2	C- Common in mesic sites
G5T2T3	MOD	PIMEPHALES TENELLUS PARVICEPS	EASTERN SLIM MINNOW	10	6	A
G5	MOD	PIRANGA RUBRA	SUMMER TANAGER	10	19	
GUT1	OZ	PLAGIOCHILA ACANTHOPHYLLA	LIVERWORT	10	1	A- Only known site
G4	OZ	PLETHODON ALBAGULA	WESTERN SLIMY SALAMANDER	10	1	C- Not uncommon but not tracked
G5T4	OZ	PLETHODON ANGUSTICLAVIUS	OZARK ZIGZAG SALAMANDER	10	1	C- Not tracked in AR but common
G3G4	MOD	PROBLEMA BYSSUS KUMSKAKA	GOLDEN BYSSUS	10	0	C- Wide ranging species, likes fire prone areas
G4	MOD	PROCAMBARUS LIBERORUM	BURROWING CRAYFISH	10	3	M
G5T4	OZ	PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	10	36	
G1G2	R	PSEUDOSINELLA DUBIA	A SPRINGTAIL	2	2	
--	R	PYRENULA MICHENERI	A LICHEN	10	1	A- Only extant site
G1	OZ	PYRGULOPSIS OZARKENSIS	OZARK PYRG	10	1	D
G1	R	PYRGULOPSIS SCALARIFORMIS	MOSS PYRG	2	1	D
G4	MOD	RANUNCULUS HARVEYI	HARVEY'S BUTTERCUP	10	0	C- Widely distributed in woodlands
--	OZ	RICCIA OZARKIANA	A LIVERWORT	10	0	D
G1	OZ	RIMULINCOLA DIVALIS	A BEETLE	10	0	D
G4G5	MOD	RUDBECKIA MISSOURIENSIS	MISSOURI ORANGE CONEFLOWER	10	8	C- Abundant on carbonate glades
G4	MOD	SAXIFRAGA TEXANA	TEXAS SAXIFRAGE	10	2	M- Frequent on channel sandstones
G?	OZ	SCAPHINOTUS INFLECTUS	A GROUND BEETLE	10	1	D
G2	R	SCHOENOPLECTUS HALLII (SCIRPUS)	HALL'S BULRUSH	2	2	
G?	OZ	SCOTERPES DENDROPUS	CAVE MILLIPEDE	10	3	A- All known sites captured
G3	OZ	SCUTELLARIA BUSHII	BUSH'S SKULLCAP	10	10	
G5	MOD	SEDUM NUTTALLIANUM	NUTTALL'S SEDUM	10	10	
G5	MOD	SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	10	16	
G4G5	MOD	SELENIA AUREA	GOLDEN SELENIA	10	2	
G?	OZ	SIGARA METHESONI	WATER BOATMAN	10	0	D- Distribution and viability uncertain
G2G3	DJ	SILENE OVATA	OVATE-LEAF CATCHFLY	2	5	
G5	MOD	SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	10	19	
--	MOD	SOLIDAGO DRUMMONDII	DRUMMONDS GOLDENROD	10	0	C- Widely distributed on dolomite bluffs

G-rank	Target Class	Scientific Name	Common Name	Goal	Capture	Comments
G3?Q	MOD	SOLIDAGO GATTINGERI	GATTINGER'S GOLDENROD	10	4	C- Common on quality dolomite glade habitats
G2G3	R	SOMATOCHLORA HINEANA	HINE'S EMERALD DRAGONFLY	2	4	
G3	OZ	SOMATOCHLORA OZARKENSIS	OZARK EMERALD DRAGONFLY	10	2	D- Distribution and viability uncertain
G1	OZ	SOMATOGYRUS ROSEWATERI	CHERT PEBBLESNAIL	10	1	A- All known sites captured
G3	MOD	SPEYERIA DIANA	DIANA	10	2	D
G1G2	OZ	SPHALLOPLANA EVAGINATA	CAVE PLANARIAN	10	1	D- Viability uncertain for additional sites
G3G4	OZ	SPHALLOPLANA HUBRICHTI	CAVE PLANARIAN	10	4	D- Distribution and viability of other sites uncertain
G4T2Q	R	STERNA ANTILLARUM ATHALASSOS	INTERIOR LEAST TERN	2	2	
G4	OZ	STROPHOPTERYX ARKANSAE	STONEFLY	10	0	D- Distribution and viability uncertain
G2G3	OZ	STYGOBROMUS BARRI	CAVE AMPHIPOD	10	0	D- Viability and distribution of St. Francis Mountains spring sites uncertain
G1	OZ	STYGOBROMUS ONONDAGAENSIS	ONONDAGA CAVE AMPHIPOD	10	10	
G3G4	OZ	STYGOBROMUS OZARKENSIS	OZARK CAVE AMPHIPOD	10	14	
G2	R	STYGOBROMUS SUBTILIS	SUBTLE CAVE AMPHIPOD	2	0	D- Viability and distribution uncertain. One Missouri site known
G5	MOD	THRYOMANES BEWICKII	EASTERN BEWICK’S WREN	10	14	53% breeding population in the Ozarks
G2T2	R	TOXOLASMA LIVIDUS (GLANS)	PURPLE LILLIPUT	2	7	
G3G4Q	OZ	TRADESCANTIA ERNESTIANA	ERNEST'S SPIDER-WORT	10	0	C- Rocky woodlands in western Ozarks; not tracked
G4	OZ	TRADESCANTIA LONGIPES	A SPIDERWORT	10	0	C- Center of distribution
G3	OZ	TRADESCANTIA OZARKANA	OZARK SPIDERWORT	10	18	
G1G2	OZ	TRIGENOTYLA PARCA	CAVE MILLIPEDE	10	2	D- Distribution uncertain
G3T3	MOD	TRILLIUM PUSILLUM VAR OZARKANUM	OZARK WAKE ROBIN	10	6	C
G4G5	MOD	TRILLIUM VIRIDE	GREEN TRILLIUM	10	1	C- Majority of global population in Central Missouri River Hills
G5?	MOD	TRIODANIS LAMPROSPERMA	PRAIRIE VENUS' LOOKING-GLASS	10	0	C
G4	OZ	TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	10	24	
G1G2	MOD	VALERIANELLA NUTTALLII	NUTTALL CORN-SALAD	10	3	A
G3	MOD	VALERIANELLA OZARKANA	OZARK CORN SALAD	10	7	M
--	MOD?	VENTURIELLA SINENSIS ANGUSTIANNULATA	A MOSS	10	0	D- Distribution uncertain
G3G4	OZ	VENUSTACONCHA PLEASII	BLEEDINGTOOTH	10	13	
G4	OZ	VERNONIA ARKANSANA	ARKANSAS IRONWEED	10	0	D
G2	R	VERTIGO MERAMECENSIS	BLUFF VERTIGO	2	2	
G2G3	R	VIVIPARUS SUBPURPUREUS	OLIVE MYSTERYSNAIL	2	2	
G?	OZ	XENOCHALEPUS POTOMACA	LEAF BEETLE	10	1	D
G1G2	OZ	XENOTRECHUS CONDEI	CAVE BEETLE	10	0	D- Viability especially uncertain Distribution uncertain
G1G2	OZ	XENOTRECHUS DENTICOLLIS	CAVE BEETLE	10	1	D- Viability uncertain for additional sites
G?	OZ	ZYGODON APICULATUS	A MOSS	10	0	D

Appendix 3B. Secondary Species Information

G-rank	Target Class	Scientific	Common	Range Comment	Habitat Comment
G5	DECL	ACCIPITER COOPERII	COOPER'S HAWK		
G3	R	ACIPENSER FULVESCENS	LAKE STURGEON		
G4	DJ	ACONITUM UNCINATUM	SOUTHERN MONKSHOOD		
G3	R	AGALINIS AURICULATA	AURICULATE FALSE FOXGLOVE		
G3	R	AGALINIS SKINNERIANA	PALE GERARDIA		
G3	R	AIMOPHILA AESTIVALIS	BACHMAN'S SPARROW		Habitat restricted (grass)
G4	DECL	ALASMIDONTA MARGINATA	ELKTOE	Widespread	
G4G5	DECL	ALASMIDONTA VIRIDIS	SLIPPER SHELL	Widespread	Spring fed gravel streams
G3G4	R	AMBLYSCIRTES AESCULAPIUS	LACEWING ROADSIDE SKIPPER		
G3	R	AMMOCRYPTA CLARA	WESTERN SAND DARTER		
G4	DECL	AMMODRAMUS HENSLOWII	HENSLOW'S SPARROW		Habitat restricted (old grass)
G5	DECL	AMMODRAMUS SAVANNARUM	GRASSHOPPER SPARROW		habitat restricted
G5	DJ	ASPLENIUM MONTANUM	MOUNTAIN SPLEENWORT		
G5	DJ	ASPLENIUM RUTA-MURARIA	WALL-RUE SPLEENWORT		
G3	R	ASTER FURCATUS	FORKED ASTER		
G3	DJ	BERBERIS CANADENSIS	ALLEGHENY BARBERRY		
G3G4	R	BROMUS NOTTOWAYANUS	A BROME		
G3G4	R	BRYUM MINIATUM	A MOSS		
G3G4	R	CAECIDOTEA PACKARDI	ISOPOD		Subaquatic
G3G4	R	CAECIDOTEA SPATULATA	ISOPOD		
G4T3	R	CALAMAGROSTIS PORTERI SSP INSPERATA	OFERHOLLOW REED GRASS		
G3G4	DJ	CALEPHELIS BOREALIS	NORTHERN METALMARK		
G3G4	DJ	CALEPHELIS MUTICA	SWAMP METALMARK		
G3?	R	CALLIRHOE TRIANGULATA	CLUSTERED POPPY MALLOW		
G5	DJ	CAREX ALATA	BROADWING SEDGE		
G3	R	CAREX DECOMPOSITA	CYPRESS-KNEE SEDGE		
G5	DJ	CAREX STRAMINEA	STRAW SEDGE		
G5T5	DJ	CEMOPHORA COCCINEA COPEI	NORTHERN SCARLET SNAKE		
G4T3	R	CHELONE OBLIQUA VAR SPECIOSA	ROSE TURTLEHEAD		
G5	DECL	COCCYZUS AMERICANUS	YELLOW-BILLED CUCKOO	Area sensitive, 9% global breeding pop.	
G3G4	R	COGIA OUTIS	OUTIS SKIPPER		
G5	DECL	COLINUS VIRGINIANUS	NORTHERN BOBWHITE		Shrubs
G5T4?	DJ	COREOPSIS GRANDIFLORA SAXICOLA	LARGE-FLOWERED TICKSEED		
G3	R	CRYSTALLARIA ASPRELLA	CRYSTAL DARTER		
G4T4	DJ	CRYTOBRANCHUS ALLEGANIENSIS ALLEGANIENSIS	ALLEGANY HELLBENDER		
G5	DECL	CYCLONAIAS TUBERCULATA	PURPLE WARTYBACK		
G3	R	CYPRIPEDIUM KENTUCKIENSE	SOUTHERN LADY'S-SLIPPER		
G3G4	DJ	DALEA GATTINGERI	GATTINGER PRAIRIE-CLOVER		
G3	DJ	DELPHINIUM EXALTATUM	TALL LARKSPUR		
G4	DECL	DENDROICA CERULEA	CERULEAN WARBLER		Habitat restricted

G-rank	Target Class	Scientific	Common	Range Comment	Habitat Comment
					(emergent trees)
G5	DECL	DENDROICA DISCOLOR	PRAIRIE WARBLER		Habitat restricted (shrubs)
G5	DJ	DENDROICA PENSYLVANICA	CHESTNUT-SIDED WARBLER		DJ (shrubs)
G5	DJ	DENDROICA VIRENS	BLACK-THROATED GREEN WARBLER		DJ (some pine)
G4	DJ	DODECATHEON AMETHYSTINUM	AMETHYST SHOOTING STAR		
G5	DECL	DRYOCOPUS PILEATUS	PILEATED WOODPECKER		Area sensitive (mature forests), 8% pop.
G3Q	R	ECHINODORUS TENELLUS VAR PARVULUS	DWARF BURHEAD		
G4	DECL	ELLIPSARIA LINEOLATA	BUTTERFLY		
G3?Q	R	ELYMUS DIVERSIGLUMIS	WILD RYE		
G5	DECL	EMPIDONAX VIRESCENS	ACADIAN FLYCATCHER	Center of distribution	
G3G4	R	ENODIA CREOLA	CREOLE PEARLY-EYE		
G3	R	EPIOBLASMA TRIQUETRA	SNUFFFBOX		
HYB/N?	DJ	EQUISETUM X NELSONII	NELSON'S SCOURING RUSH		
G3	R	ETHEOSTOMA CRAGINI	ARKANSAS DARTER		
G4G5	DJ	FILIPENDULA RUBRA	QUEEN OF THE PRAIRIE		
G3	DJ	FOTHERGILLA MAJOR	WITCH-ALDER		
G5	DJ	GALIUM BOREALE	NORTHERN BEDSTRAW		
G5	DJ	GLYCERIA ACUTIFLORA	SHARP-SCALED MANNA GRASS		
G3	R	GRYLLOTALPA MAJOR	PRAIRIE MOLE CRICKET		
G5	DECL	HELMITHEROS VERMIVORUS	WORM-EATING WARBLER		Area sensitive
G5	DJ	HEMIDACTYLIUM SCUTATUM	FOUR-TOED SALAMANDER		
G5T3T4Q	DJ	HETERODON NASICUS GLOYDI	DUSTY HOGNOSE SNAKE		
G3	R	HOMALIADELPHUS SHARPII	SHARP'S HOMALIADELPHUS		
G5	DECL	ICTERUS SPURIUS	ORCHARD ORIOLE		Area sensitive, (oak savanna)
G3G4	DECL	JUGLANS CINEREA	BUTTERNUT		
G5	DJ	JUNIPERUS ASHEI	ASHE'S JUNIPER		
G5T5	DJ	KINOSTERNON FLAVESCENS FLAVESCENS	YELLOW MUD TURTLE		
G5	DECL	LAMPSILIS CARDIUM (VENTRICOSA)	PLAIN POCKETBOOK		
G5	DECL	LAMPSILIS SILIQUOIDEA	FAT MUCKET		
G5 T?	DECL	LAMPSILIS TERES ANADONTOIDES	YELLOW SANDSHELL		
G5T3Q	R	LANIUS LUDOVICIANUS MIGRANS	LOGGERHEAD SHRIKE		Area sensitive
G3	R	LEITNERIA FLORIDANA	CORKWOOD		
G5	DECL	LEPTODEA FRAGILIS	FRAGILE PAPERSHELL		
--	DJ	LEUCOLEJEUNEA LAMACERINA GEMMINATA	A LIVERWORT		
G5	DECL	LIGUMIA RECTA	BLACK SANDSHELL		
G4	DECL	LIMNOTHLYPIS SWAINSONII	SWAINSON'S WARBLER		Habitat restricted (cane)
G5	DJ	LYCOPODIUM DENDROIDEUM	ROUND-BRANCHED GROUND PINE		
G5	DJ	LYCOPODIUM TRISTACHYUM	GROUND CEDAR		
G3G4	R	MACROCLEMYS TEMMINCKII	ALLIGATOR SNAPPING TURTLE		
G5	DJ	MAGNOLIA TRIPETALA	UMBRELLA MAGNOLIA		

G-rank	Target Class	Scientific	Common	Range Comment	Habitat Comment
G5	DJ	MELANTHIUM HYBRIDUM	BROADLEAF BUNCHFLOWER		
G5	DJ	MENYANTHES TRIFOLIATA	BOG BUCKBEAN		
G5	DJ	MIMULUS FLORIBUNDUS	FLORIFEROUS MONKEYFLOWER		
G3G4	R	MYOTIS AUSTRORIPARIUS	SOUTHEASTERN BAT		
G3	R	MYOTIS LEBII	SMALL-FOOTED MYOTIS		
G3?	R	NARDIA LESCURII	A LIVERWORT		
G3G4	R	ONCOPODURA IOWAE	SPRINGTAIL	Illinois karst	
G5	DECL	OPORORNIS FORMOSUS	KENTUCKY WARBLER	Area sensitive, 17% global breeding pop.	
G5	DJ	ORYZOPSIS RACEMOSA	BLACK-SEEDED MOUNTAIN RICE		
--	DJ	PANNARIA RUBIGINOSA	A LICHEN		
G5	DECL	PASSERINA CIRIS	PAINTED BUNTING		habitat restricted (shrubs)
G3	R	PERCINA URANIDEA	STARGAZING DARTER		
G5	DJ	PHILADELPHUS HIRSUTUS	A MOCK ORANGE		
G4	DECL	PLANTAGO CORDATA	HEART-LEAVED PLANTIAN		
G3	R	PLETHOBASUS CYPHYUS	SHEEPNOSE		
G5?	DJ	PLETHODON SERRATUS	SOUTHERN REDBACK SALAMANDER		
G3	R	PLEUROBEMA CORDATUM	OHIO PIGTOE		
G5	DJ	POTENTILLA CANADENSIS	CANADA CINQUEFOIL		
G5T3	R	PSEUDACRIS STRECKERI ILLINOENSIS	ILLINOIS CHORUS FROG		Terrestrial Bottomland open breeds in ponds and wetland
G3	R	PSEUDOSINELLA ESPANA	A SPRINGTAIL		
G3G4	R	PTYCHOBRANCHUS OCCIDENTALIS	OUACHITA KIDNEYSHELL		
G5T3Q	R	PYGANODON GRANDIS CORPULENTA	STOUT FLOATER		
G3T3	R	QUADRULA CYLINDRICA CYLINDRICA	RABBIT'S FOOT		
G5	DJ	RANA SYLVATICA	WOOD FROG		
G5	DJ	REGINA SEPTEMVITTATA	QUEEN SNAKE		
G3G4	R	SCHOENOPLECTUS DELTARUM (SCIRPUS)	DELTA BULRUSH		
G3G4	R	SCHOENOPLECTUS ETUBERCULATUS (SCIRPUS)	CANBY'S BULRUSH		
G4G5	DJ	SCIRPUS SUBTERMINALIS	SWAYING RUSH		
G5?	DJ	SCIRPUS TORREYI	TORREY'S BULRUSH		
G3G4	R	SCLERIA RETICULARIS	NUTRUSH		
G5	DECL	SEIURUS AUROCAPILLUS	OVENBIRD	Area sensitive	
G5TU	DJ	SILENE CAROLINIANA WHERRYI	WHERRY'S CATCHFLY		
G3G4	R	SILENE REGIA	ROYAL CATCHFLY		
G3	R	SIMPSONAIAS AMBIGUA	SALAMANDER MUSSEL		
G3G4T3T4	R	SISTRURUS CATENATUS CATENATUS	EASTERN MASSASAUGA	Extant EOR in golf course	Wet prairie
G5	DJ	SPEA BOMBIFRONS	PLAINS SPADEFOOT		
G3	R	SPEYERIA IDALIA	REGAL FRITILLARY		
G5T4	DECL	SPILOGALE PUTORIUS INTERRUPTA	PLAINS SPOTTED SKUNK		
G5	DECL	SPIZELLA PUSILLA	FIELD SPARROW		Habitat restricted (shrubs), 8% pop.

G-rank	Target Class	Scientific	Common	Range Comment	Habitat Comment
G2G4	R	STYGOBROMUS CLANTONI	CLANTON'S CAVE AMPHIPOD		
--	DJ	TORTULA CHISOSA	A MOSS		
G5	DJ	TRAUTVETTERIA CAROLINIENSIS	FALSE BUGBANE		
G4	DJ	TRICHOMANES BOSCHIANUM	BRISTLE-FERN		
G4G5	DJ	TRICHOMANES PETERSII	DWARF FILMY-FERN		
G3	R	TRIFOLIUM STOLONIFERUM	RUNNING BUFFALO CLOVER		
--	DJ	TUCKERMANNOPSIS AMERICANA	A LICHEN		
G4	DECL	TYMPANUCHUS CUPIDO	GREATER PRAIRIE CHICKEN	Habitat restricted, area sensitive	
G4	DJ	TYPHLICHTHYS SUBTERRANEUS	SOUTHERN CAVEFISH		
G5	DJ	ULMUS THOMASII	ROCK ELM		
G5	DJ	URSUS AMERICANUS	BLACK BEAR		
G3G4	R	VENUSTACONCHA ELLIPSIFORMIS	ELLIPSE		
G5	DECL	VERMIVORA PINUS	BLUE-WINGED WARBLER	(10% global breeding pop.)	
G5	DECL	VIREO BELLII	BELL'S VIREO		habitat restricted (shrubs)
G5	DJ	WALDSTEINIA FRAGARIOIDES	BARREN STRAWBERRY		
--	DJ	WEISSIA SHARPII	A MOSS		
G5	DECL	WILSONIA CITRINA	HOODED WARBLER		Dense vegetation
G5	DJ	ZIGADENUS ELEGANS	WHITE CAMAS		
G3G4	R	ZOSTERACTIS INTERMINATA	A MILLIPEDE		

Appendix 3C. Small Patch and Large Patch Terrestrial Community Capture

Target				
ID	**Name**	**Goal**	**Capture**	**Comment**
104	Acid Deciduous Woodland Complex	10	31	
139	Acid Seep	10	10	
148	Acid Upland Prairie	10	9	All known viable occurrences
118	Alder Thicket	10	13	
107	Ashe Juniper Woodland	10	4	Multiple occurrences captured- Heritage records lacking
119	Cane Break	10	5	Potential restoration sites occur in greater White River basin
132	Carbonate Rock Wash	10	20	All known viable occurrences
158	Carbonate Talus	10	14	
146	Carbonate Upland Prairie	10	4	All known viable occurrences
155	Chert Glade Complex	2	2	Total global occurrences captured
153	Dolomite Glade Complex	10	20	
160	Dry Carbonate Cliff	10	18	
163	Dry Siliceous Cliff	10	14	
147	Eastern Loess Hill Prairie	3	3	All known viable occurrences
130	Floodplain Marsh	10	1	Data gaps
138	Forested Fen	10	7	
131	Freshwater Marsh	10	3	Data gaps
149	Hardpan Prairie	10	2	Only known occurrences in ecoregion
105	High Base Deciduous Woodland Complex	10	22	
115	Hydric Flatwoods	10	2	Data gaps
151	Igneous Glade Complex	10	23	
157	Igneous Talus	10	4	Multiple occurrences captured- Heritage records lacking
128	Large River Mud Flat	10	2	Multiple occurrences captured- Heritage records lacking
114	Large River Riparian Woodland Complex	10	3	Data gaps
127	Large River Sand Flat	10	2	Multiple occurrences captured- Heritage records lacking
125	Large River Slough	10	2	Data gaps
152	Limestone Glade Complex	10	18	
123	Lotic Shoal	10	2	Data gaps
142	Mesic Prairie	10	6	All known viable occurrences
145	Mesic Sand Prairie	10	2	All known viable occurrences
113	Mesophytic Bottomland Woodland Complex	10	21	
110	Mesophytic Deciduous Woodland Complex	10	22	
111	Mesophytic Deciduous Woodland Complex - Beech Phase	10	8	Data gaps
161	Moist Carbonate Cliff	10	17	
162	Moist Siliceous Cliff	10	14	
117	Overcup Pond Forest	10	2	Classification questions
141	Ozark Fen Complex	10	11	
121	Ozark Gravel Bar	10	17	

Target				
ID	Name	Goal	Capture	Comment
112	Ozark Riparian Woodland Complex	10	18	
124	Ozark Slough	10	9	Multiple occurrences captured- Heritage records lacking
106	Pine-Oak Woodland Complex	10	19	
136	Pond Swamp	10	3	Review selection process
144	Prairie Fen	10	13	
143	Riparian Wet Prairie	10	0	No known viable occurrences
120	Riverine Sand/Mud Bar	10	1	Multiple occurrences captured- Heritage records lacking
108	Rock Chestnut Oak	1	1	Only occurrence in ecoregion captured
140	Saline Seep	1	1	Only occurrence in ecoregion captured
154	Sandstone Glade Complex	10	18	
159	Sandstone Talus	10	6	Data gaps
156	Shale Glade, Acid Subtype	10	2	Classification questions
103	Shortleaf Pinery Complex	10	13	
135	Shrub Swamp	10	3	Review selection process
122	Siliceous Rock Wash	10	16	
134	Sinkhole Pond Marsh	10	17	
133	Sinkhole Pond Shrub Swamp	10	20	
116	Southern Flatwoods	10	3	Data gaps
129	Streamside Fen	10	10	
137	Swamp	10	1	Only extant viable occurrence captured
109	Upland Flatwoods	10	10	

Appendix 3D. Karst Community Capture

Target		Subsection						
ID	**Name**	Northern Border	Salem Plateau	Eastern Border	Springfield Plateau	White River	**Total Capture**	**Comments**
164	Cave	1	12	0	4	24	**41**	Data gaps, many Cave-Aquatic sites, >50%, also contain terrestrial cave habitat
165	Cave- Aquatic	1	31	9	18	12	**71**	Northern Border has limited aquatic karst habitat
126	Spring System	2	8	4	1	5	**20**	Data gaps, 433 springs along Missouri portfolio aquatic sites alone, ranking and viability data lacking for nearly all

Appendix 3E. Aquatic Community Capture

Target		Subsection					
ID	**Name**	Missouri River	Arkansas River	White River	Mississippi River	**Total Capture**	**Comments**
166	Creek/ Headwater Stream	11	4	15	3	**33**	100+ viable headwater streams selected in terrestrial landscape sites
167	Small River	10	3	12	1	**26**	
168	Large River	3	0	4	0	**7**	Type does not occur in Mississippi subsection; Arkansas basin occurrences altered by dam construction and reservoirs

Appendix 3F. Matrix Community Target Capture

The following table enumerates by subsection the matrix community targets captured in the ecoregion (M=present historically but not today; M-#=the number of present day occurrences of the community in that subsection). A total of ten natural community types occurred at least historically as matrix scale communities somewhere in the Ozarks. Six of these community types occurred as matrix communities within only a single subsection. Each subsection included one to four matrix community types.

Using the goals for matrix communities established by the assessment team – a viable matrix community representation in every subsection, with a minimum of three occurrences of each matrix community type regardless of subsectional distribution pattern – conservation goals were fully met for four matrix communities, and partially met for a fifth community type.

No viable occurrences were selected for half of the community types. All but one of these types occurred as matrix communities only in a single subsection. All of the matrix communities that were not successfully conserved are rare and highly vulnerable systems that have been decimated by post-Eurosettlement impacts. These communities tended to occur in the more fertile, level sites, and, hence, readily exploitable. These communities also consisted of prairies and wetlands, as well as the open limestone woodlands on the level fertile plains of the Springfield Plateau.

The portfolio configuration derived through this ecoregional assessment is unlikely to be improved substantially in terms of matrix community through future iterations. The selection was based on adequate data, and gaps reflect fundamental gaps in the landscape rather than uncertainties based on data or confidence levels. Unselected community types are highly unlikely to have new occurrences discovered, and completing ecoregional goals will require large scale intensive ecological restoration.

Appendix 3F. Matrix Community Target Capture

					Subsection																		
Target					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Number	Description	Total number of subsections community occurred as matrix	Number of subsections with matrix community captured Goal- every possible subsection	Total number of matrix community captures Goal- >3	Spring. Plateau	Spring. Plain	White R. Hills	Elk R. Hills	Lower Boston	Upper Boston	Central Plateau	Osage Hills	Gasconade Hills	Meramec R. Hills	Current R. Hills	St. Francois Knobs	Inner Border	Outer Border	Illinois Ozarks	Prairie Border	Missouri Alluvial	Mississippi R. Alluvial	Black R. Border
103	Shortleaf Pinery Complex	4	4	4					M-1	M-1					M-1								M-1
104	Acid Deciduous Woodland Complex	17	15	30	M-3	M	M-5	M-1	M-2	M-1	M-3	M-2	M-2	M-1	M-1	M-3	M-1	M-2	M-1	M			M-2
105	High Base Deciduous Woodland Complex	1	0	0		M																	
106	Pine-Oak Woodland Complex	11	11	18	M?-3		M-2	M-1	M-3	M-1			M-1	M-1	M-1	M-3	M-1						M-1
114	Large River Riparian Woodland Complex	1	1	1																	M-1		
115	Hydric Flatwoods	1	0	0																			M
142	Mesic Prairie	1	0	0																		M	
143	Riparian Wet Prairie	1	0	0																		M	
148	Acid Upland Prairie	3	0	0	M	M														M			
153	Dolomite Glade Complex	1	1	3			M-3																

Appendix 4. Portfolio Site Characterizations

This list provides detailed information about every Ozarks ecoregional portfolio site. Aquatic sites are listed first, followed by terrestrial landscape areas, small scale terrestrial sites, and karst areas. Within each of these site classes, portfolio sites are ordered by site number; note that these numbers are not always consecutive.

The first line of each entry provides the portfolio site number and name, state(s) where the site is located and size of the site. Sizes are given in acres for terrestrial landscape areas and karst areas and in miles of stream reach for aquatic sites. Sizes are not provided for small scale terrestrial sites. The state where the site occurs in is listed by a two-letter abbreviation; sites spanning multiple states are indicated by combining abbreviations for each state (e.g. ARMO indicates that the site includes portions of Arkansas and Missouri).

Following this is the name of the subsection where the site is located, using either terrestrial, aquatic, or karst subsectional classification, depending on the type of site. There is also a brief description of the site and an overall threat rank. For sites with threat ranks of High or Very High, the primary stresses contributing to this threat rank are also enumerated.

Following this section, the account for each site also includes an enumeration of the natural community and species targets captured at the site. If there are any publicly owned lands or other known conservation ownership within a site polygon, these are provided following the target listing, with the managed area name and owner. Size of the managed is also given for terrestrial landscape areas.

Appendix 4. Table of Contents

Alphabetical list of portfolio site names and numbers by type: (LCA=Landscape Conservation Area; CA=Conservation Area)

4A. Aquatic Sites

1 Baron Fork
46 Bear Creek
2 Big Creek
3 Big Piney River
4 Big River
5 Black River
6 Bonne Femme Creek
7 Bourbeuse River
8 Brush Creek
9 Bryant Creek
10 Buffalo River
11 Castor River
13 Clear Creek
44 Current River
14 Eleven Point River
15 Elk River
16 Gasconade River
17 Huzzah/Courtois Creeks
45 Indian Creek
18 Jacks Fork River
20 Kings River
21 Little Black River
22 Little Niangua River
23 Little Red River
24 Maries River
25 Meramec River
26 Moniteau Creek
27 Mulberry River
28 Niangua River
29 North Fork White River
30 Osage Fork Gasconade River
31 Osage River
32 River aux Vases
33 Rocky Creek
34 Roubidoux Creek
35 Saline Creek
36 Salt Creek
38 Spavinaw Creek
40 Spring River
39 Spring River, AR
41 St. Francis River
42 Strawberry River
43 Tavern Creek

4B. Terrestrial Landscape Areas

143 Ava Glades
150 Big Piney Hills
148 Big Sugar Creek
130 Boston Mountains
144 Caney Hills
137 Central Missouri Hills
160 Cherokee-Gruber
132 Cookson Hills
134 Current River LCA
142 Drury-Mincy
138 Fults Hill Prairie Complex
161 Garret Hollow
153 Harold Alexander
163 Jefferson County Glades
151 Kaintuck Hollow
140 Lamar LCA
136 LaRue/Trail of Tears
152 Meramec Hills
157 Mud Creek
159 Mudlick Mountain
145 North Fork Hills
139 Pickle Creek Complex
156 Poplar Bluff Pinery
164 Pump Hollow
141 Roaring River
162 Rock Pile Mountain
133 St. Francois Mountains
131 Sylamore
149 Truman Savanna
135 Western Ozarks Savanna
155 White Ranch

4C. Small Scale Terrestrial Sites

416 Ash Pond
400 Aux Vasse Glade
411 Baker Prairie
207 Bois D'Arc
425 Bonne Femme Hill
222 Bona Glade
426 Buzzard's Bluff
220 Carmack Branch Glade
210 Clear Creek Glade
420 Coonville creek
215 Corry Branch Glade
216 Corry Flatrocks
218 Eudora Glade
428 Fairmont City
223 Flint Hill Glades
205 Greenfield Glade
410 Hampton Church Sinks
213 Highway O Glade
415 Hite Prairie
427 Horseshoe Lake
422 LaPetite Gemme Prairie
413 Lichen Glade
404 Lindsey Prairie
412 Little Proctor Creek Fen
221 Maze Creek
219 Maze Creek Powerline
429 Mount Vernon Prairie
409 Murphy Pond
419 Otter Creek Ponds
414 Pelican Island
214 Pertuche Glade
211 Phenix Glade
401 Poag Railroad Prairie
217 Rice Glade
209 Roberts Field
423 Rockhill Prairie
212 Rocky Barrens
417 St. Joe
421 Tree Farm Prairie
208 Two Horse Glade
424 Warren Prairie
408 Wildcat Glade Complex
206 Wilson's Creek

4D. Karst Areas

734 Batesville Karst
751 Beal Karst
760 Bearden Hollow Karst
726 Bella Vista Karst
745 Bentonville Karst
732 Big Spring Karst
742 Black Oak Karst
758 Blackwater Spring
735 Blanchard Springs Karst
752 Bryant Creek Karst
737 Buffalo City Karst
740 Buffalo River Karst
727 Caney Mountain Karst
708 Cave Ridge Karst
743 Cave Springs Karst
720 Center Creek Karst
711 Climax Springs Karst
753 Coffin Cave CA
701 Columbia Karst
719 Crane Creek Karst
714 Cross Timbers Karst
744 Devils Den Karst
736 Dodd City Karst
729 Eleven Point Karst
717 Fantastic Caverns
738 Freck Karst
713 Ha Ha Tonka Karst
722 Hub City Karst
750 Jacks Fork Karst
749 Jay Karst
709 Kaintuck Karst
754 LaRue Pine Hills RNA Spring
716 Lewis & Clark Karst
724 Little Flat Creek Karst
759 Marvel Cave
705 Meramec Karst
756 Meramec Spring
725 Neosho Karst
704 Onondaga Karst
712 Ozark Caverns
718 Paris Springs Karst
703 Perryville Karst
715 Pierpont Karst
707 Pilot Knob Mine
731 Powder Mill Karst
723 Radium Spring Karst
700 Renault Karst
755 Rockwoods Spring
757 Salt Spring
706 Short Bend Karst
746 Spavinaw Creek Karst
702 Ste. Genevieve Karst
748 Stilwell Karst
721 Stutts Karst
728 Tumbling Creek Karst
733 Unimin Mines
730 Upper Current Karst
739 War Eagle Karst
710 Waynesville Karst
747 Winset Hollow Karst

Alphabetical List of Portfolio Sites by State (sites that cover multiple states are listed under each state):

Arkansas		Illinois		Missouri								Oklahoma		Kansas	
411	Baker Prairie	13	Clear Creek	416	Ash Pond	719	Crane Creek Karst	221	Maze Creek	162	Rock Pile Mountain	1	Baron Fork	40	Spring River
734	Batesville Karst	701	Columbia Karst	400	Aux Vasse Glade	714	Cross Timbers Karst	219	Maze Creek Powerline	423	Rockhill Prairie	160	Cherokee-Gruber		
726	Bella Vista Karst	428	Fairmont City	143	Ava Glades	44	Current River	152	Meramec Hills	755	Rockwoods Spring	132	Cookson Hills		
745	Bentonville Karst	138	Fults Hill Prairie Complex	751	Beal Karst	134	Current River LCA	705	Meramec Karst	212	Rocky Barrens	132	Cookson Hills		
742	Black Oak Karst	427	Horseshoe Lake	46	Bear Creek	142	Drury-Mincy	25	Meramec River	33	Rocky Creek	749	Jay Karst		
735	Blanchard Springs Karst	754	LaRue Pine Hills RNA Spring	760	Bearden Hollow Karst	729	Eleven Point Karst	756	Meramec Spring	34	Roubidoux Creek	38	Spavinaw Creek		
130	Boston Mountains	136	LaRue/Trail of Tears	2	Big Creek	14	Eleven Point River	26	Moniteau Creek	35	Saline Creek	746	Spavinaw Creek Karst		
737	Buffalo City Karst	401	Poag Railroad Prairie	150	Big Piney Hills	15	Elk River	429	Mount Vernon Prairie	36	Salt Creek	40	Spring River		
10	Buffalo River	700	Renault Karst	3	Big Piney River	218	Eudora Glade	157	Mud Creek	757	Salt Spring	748	Stilwell Karst		
740	Buffalo River Karst	733	Unimin Mines	4	Big River	717	Fantastic Caverns	159	Mudlick Mountain	706	Short Bend Karst	747	Winset Hollow Karst		
743	Cave Springs Karst			732	Big Spring Karst	223	Flint Hill Glades	409	Murphy Pond	40	Spring River				
744	Devils Den Karst			148	Big Sugar Creek	16	Gasconade River	725	Neosho Karst	39	Spring River, AR				
736	Dodd City Karst			5	Black River	205	Greenfield Glade	28	Niangua River	41	St. Francis River				
142	Drury-Mincy			758	Blackwater Spring	713	Ha Ha Tonka Karst	145	North Fork Hills	133	St. Francois Mountains				
14	Eleven Point River			207	Bois D'Arc	410	Hampton Church Sinks	29	North Fork White River	417	St. Joe				
738	Freck Karst			425	Bonne Femme Hill	213	Highway O Glade	704	Onondaga Karst	702	Ste. Genevieve Karst				
161	Garret Hollow			222	Bona Glade	415	Hite Prairie	30	Osage Fork Gasconade River	721	Stutts Karst				
153	Harold Alexander			6	Bonne Femme Creek	722	Hub City Karst	31	Osage River	43	Tavern Creek				
45	Indian Creek			7	Bourbeuse River	17	Huzzah/Courtois Creeks	419	Otter Creek Ponds	421	tree farm prairie				
20	Kings River			8	Brush Creek	45	Indian Creek	712	Ozark Caverns	149	Truman Savanna				
404	Lindsey Prairie			9	Bryant Creek	750	Jacks Fork Karst	718	Paris Springs Karst	728	Tumbling Creek Karst				
23	Little Red River			752	Bryant Creek Karst	18	Jacks Fork River	414	Pelican Island	208	Two Horse Glade				
27	Mulberry River			426	Buzzard's Bluff	163	Jefferson County Glades	703	Perryville Karst	730	Upper Current Karst				
141	Roaring River			144	Caney Hills	151	Kaintuck Hollow	214	Pertuche Glade	135	Western Ozarks Savanna				
38	Spavinaw Creek			727	Caney Mountain Karst	709	Kaintuck Karst	211	Phenix Glade	424	Warren Prairie				
746	Spavinaw Creek Karst			220	Carmack Branch Glade	422	LaPetite Gemme Prairie	139	Pickle Creek Complex	710	Waynesville Karst				
39	Spring River, AR			11	Castor River	140	Lamar LCA	715	Pierpont Karst	155	White Ranch				
42	Strawberry River			708	Cave Ridge Karst	136	LaRue/Trail of Tears	707	Pilot Knob Mine	408	Wildcat Glade Complex				
131	Sylamore			720	Center Creek Karst	716	Lewis & Clark Karst	156	Poplar Bluff Pinery	206	Wilson's Creek				
739	War Eagle Karst			137	Central Missouri Hills	413	Lichen Glade	731	Powder Mill Karst						
155	White Ranch			210	Clear Creek Glade	21	Little Black River	164	Pump Hollow						
741	Withrow Springs Karst			711	Climax Springs Karst	724	Little Flat Creek Karst	723	Radium Spring Karst						
				753	Coffin Cave CA	22	Little Niangua River	217	Rice Glade						
				420	Coonville Creek	412	Little Proctor Creek Fen	32	River aux Vases						
				215	Corry Branch Glade	24	Maries River	141	Roaring River						
				216	Corry Flatrocks	759	Marvel Cave	209	Roberts Field						

Appendix 4A. List of Targets by *Aquatic Site* with Descriptions

1 Baron Fork OK 38 miles

ARKANSAS RIVER AQUATIC SUBSECTION

Medium-size tributary of the Illinois River with a warm-water, spring-fed fishery on a cherty gravel-cobble substrate underlain by Mississippian limestone; encompasses Tyner Creek, a fourth-order tributary of Baron Fork. The surrounding watershed consists of rolling hills of oak and pine-oak forest and woodlands. Much of the riparian and bottomland areas have been converted to pasture. Pollutants include nutrification from chicken houses, dairy operations, and septic systems, and gravel from stream bank erosion.

Threat Rank - Medium

Community Targets

Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLOPLITES CONSTELLATUS	OZARK BASS	G5	OZ	Fish
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
CYPRINELLA CAMURA (NOTROPIS)	BLUNTFACE SHINER	G5	MOD	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII (AR RACE)	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA MICROPERCA OZARKANUS	OZARK LEAST DARTER	G5T?	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS CARDINALIS (NOTROPIS)	CARDINAL SHINER	G4?	OZ	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOCOMIS ASPER	REDSPOT CHUB	G3G4?	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
NOTURUS PLACIDUS	NEOSHO MADTOM	G2	OZ	Fish
ORCONECTES NEGLECTUS	RINGED CRAYFISH	G5	MOD	Invertebrate-Crayfish
PROCAMBARUS LIBERORUM	BURROWING CRAYFISH	G4	MOD	Invertebrate-Crayfish
ALLOCAPNIA JEANAE	WINTER STONEFLY	G2	OZ	Invertebrate-Insect
FUSCONAIA OZARKENSIS	OZARK PIGTOE	G3	MOD	Invertebrate-Mussel
OBOVARIA JACKSONIANA	SOUTHERN HICKORYNUT	G1G2	DJ	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Tenkiller Lake Project	US Army Corp of Engineers

2 Big Creek MO 31 miles

WHITE RIVER AQUATIC SUBSECTION

Small tributary of the St. Francis River in the St. Francis Knobs and Basins terrestrial subsection with a warm water fishery developed on igneous substrate, coarse sand and gravel. Isolated areas of dolomite crop out in the basin which is principally forested with oak and pine-oak woodlands. The Big Creek Crayfish is globally endemic to this small watershed. Riparian areas have been converted to Fescue pasture where floodplain terraces have developed. Past mining of lead, zinc, and iron have created the potential for water quality degradation from metals leaching from tailings. Livestock are most often not excluded from stream channels.

Threat Rank – High

Principal stresses
- sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	G3G4Q	OZ	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS ALBATER	OZARK MADTOM	G4?	OZ	Fish
CAMBARUS HUBBSI	HUBB'S CRAYFISH	G5	OZ	Invertebrate-Crayfish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES PERUNCUS	BIG CREEK CRAYFISH	G2	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Graves Mountain Conservation Area	Missouri Department of Conservation
Ketcherside Mountain Conservation Area	Missouri Department of Conservation
Sam A. Baker State Park	Missouri Department of Natural Resources

3 Big Piney River MO 67 miles

MISSOURI RIVER AQUATIC SUBSECTION

Small tributary system of the Gasconade River, with sand and gravel substrates and numerous small springs hosting 23 endemic or modal species. Seven of these species have their best, most viable, populations at this site. These species include the imperiled Bluestripe Darter, which is globally restricted to the upper tributaries of the Gasconade River system. Springs add to the base flow in the upper reaches, restricting mussel beds to the warmer, larger, and more turbid lower reaches of the river. Significant portions of the watershed of the Big Piney are protected by the Mark Twain National Forest, but much riparian and floodplain habitat is privately owned and has been converted to cool-season pasture. Threats to the river system include reduced or eliminated native riparian vegetation, nutrients and sedimentation from cattle grazing and watershed conversion from forestry to grazing land use, and pollution from urban and suburban residential development.

Threat Rank - Medium

Community Targets

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA CYMATOTAENIA	BLUESTRIPE DARTER	G2	OZ	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
CUMBERLANDIA MONODONTA	SPECTACLECASE	G2G3	R	Invertebrate-Mussel
FUSCONAIA OZARKENSIS	OZARK PIGTOE	G3	MOD	Invertebrate-Mussel
LAMPSILIS REEVIANA BRITTSI	BRITTS MUSSEL	G3T2	OZ	Invertebrate-Mussel
VENUSTACONCHA PLEASII	BLEEDINGTOOTH	G3G4	OZ	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Fort Leonard Wood	US Department of Defense
Mark Twain National Forest	USDA Forest Service
Eck (Peter A.) Conservation Area	Missouri Department of Conservation
Mason Bridge Access	Missouri Department of Conservation
Boiling Spring Access	Missouri Department of Conservation
Horseshoe Bend Natural Area	Missouri Department of Conservation
Dog's Bluff Access	Missouri Department of Conservation
Piney River Narrows Natural Area	Missouri Department of Conservation

4 Big River MO 122 miles

MISSOURI RIVER AQUATIC SUBSECTION

Small tributary system of the Meramec River with sand, silt, gravel, and dolomite bedrock substrates hosting 25 endemic or modal species. These species include the once wide ranging but now restricted and imperiled Scaleshell mussel. Small springs add to the base flow in the upper reaches and tributary creeks such as Mineral Fork, and contain Freckled Crayfish and Belted Crayfish, both globally restricted to the southern portion of the Meramec River basin. Significant portions of the watershed of the Big River have been converted to agriculture and rural residential development. Most riparian and floodplain habitat is privately owned and has been converted to cool-season pasture or recreational homes (shacks and mobile homes). Threats to the river system include reduced or eliminated native riparian vegetation, nutrients and sedimentation from cattle grazing and row crop agriculture, exotic fauna introductions, low-head dams limiting fish migration, and pollution from urban and suburban residential development. Additional threats come from in-stream gravel mining and lead contamination from historic lead mining in the basin resulting in human health warnings for eating fish in the lower reaches of the Big River.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- mining contaminants

Community Targets

Creek/Headwater Stream

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
NOTURUS FLAVATER	CHECKERED MADTOM	G3G4	OZ	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
CAMBARUS MACULATUS	FRECKLED CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES HARRISONII	BELTED CRAYFISH	G3	OZ	Invertebrate-Crayfish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES MEDIUS	SADDLEBACK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
PADUNIELLA NEARCTICA	NEARTIC PADUNIELLAN CADDISFLY	G1?	OZ	Invertebrate-Insect
CUMBERLANDIA MONODONTA	SPECTACLECASE	G2G3	R	Invertebrate-Mussel
LAMPSILIS ABRUBTA	PINK MUCKET	G2	R	Invertebrate-Mussel
LAMPSILIS REEVIANA BRITTSI	BRITTS MUSSEL	G3T2	OZ	Invertebrate-Mussel
LEPTODEA LEPTODON	SCALESHELL	G1	MOD	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner

Blackwell (Jeremiah) Access	Missouri Department of Conservation
Brown's Ford Access	Missouri Department of Conservation
Cedar Hill Access	Missouri Department of Conservation
House Spring Access	Missouri Department of Conservation
Kingston Access	Missouri Department of Conservation
Mammoth Access	Missouri Department of Conservation
Merrill Horse Access	Missouri Department of Conservation
Pea Ridge Conservation Area	Missouri Department of Conservation
St. Francois State Park	Missouri Department of Natural Resources
Washington State Park	Missouri Department of Natural Resources
Mark Twain National Forest	USDA Forest Service

5 Black River MO 172 miles

WHITE RIVER AQUATIC SUBSECTION

Upper reaches of the Black River are small gravel bottom streams and a small river that arise in rugged and dissected hills and the western knobs of the St. Francois Mountains. Clearwater Dam and Reservoir divides the river with a larger, warmer, and more turbid lower reach with abundant mussel beds. Taken together, this site contains 30 endemic or modal species, including the Woodland Crayfish, which is globally restricted to headwater tributaries of the Black River [Interestingly, the Woodland Crayfish has been introduced into adjacent drainage basins by fisherman using it for bait, where it has reproduced and expanded its range. This range expansion has occurred at the expense of other range-restricted crayfish such as the Big Creek and St. Francis River crayfish, making the Woodland Crayfish an introduced species threat in those adjacent basins]. Much of the Black River watershed is in private forestry with a moderate portion of the upper watershed in state and national forest ownership. Threats to the river system include reduced or eliminated native riparian vegetation, nutrients and sedimentation from cattle grazing and watershed conversion from forestry to grazing land use, and altered hydrology in the lower reaches from dam operations.

Threat Rank - Medium

Community Targets

Creek/Headwater Stream

Large River

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	MOD	Fish
ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	G3G4Q	OZ	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA BURRI	BROOK DARTER	G4	OZ	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA EUZONUM EUZONUM	ARKANSAS SADDLED DARTER	G3G4	OZ	Fish
ETHEOSTOMA UNIPORUM	CURRENT ORANGETHROAT DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE (BLACK RIVER RACE)	BLACK RIVER BANDED DARTER	G5T?	OZ	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTROPIS OZARCANUS	OZARK SHINER	G3	OZ	Fish
NOTURUS ALBATER	OZARK MADTOM	G4?	OZ	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
PIMEPHALES TENELLUS PARVICEPS	EASTERN SLIM MINNOW	G5T2T3	MOD	Fish
CAMBARUS HUBBSI	HUBB'S CRAYFISH	G5	OZ	Invertebrate-Crayfish
ORCONECTES HYLAS	WOODLAND CRAYFISH	G4	OZ	Invertebrate-Crayfish

ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
CYPROGENIA ABERTI	WESTERN FANSHELL	G2	OZ	Invertebrate-Mussel
LAMPSILIS ABRUBTA	PINK MUCKET	G2	R	Invertebrate-Mussel
LAMPSILIS REEVIANA BREVICULA	BROKEN RAYS	G3T2	OZ	Invertebrate-Mussel
VENUSTACONCHA PLEASII	BLEEDINGTOOTH	G3G4	OZ	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
MICROMENETUS SAMPSONI	A SNAIL	G2G3	R	Invertebrate-Snail
VIVIPARUS SUBPURPUREUS	OLIVE MYSTERYSNAIL	G2G3	R	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Centerville Access	Missouri Department of Conservation
Hammer (Bradley A.) Memorial Conservation Area	Missouri Department of Conservation
Hilliard Access	Missouri Department of Conservation
Lesterville Access	Missouri Department of Conservation
Lower Taum Sauk Lake	Missouri Department of Conservation
Poplar Bluff Conservation Area	Missouri Department of Conservation
Sun (Stephen J.) Conservation Area	Missouri Department of Conservation
Johnsons Shut-Ins State Park	Missouri Department of Natural Resources
Clearwater Lake	US Army Corp of Engineers
Mark Twain National Forest	USDA Forest Service

6 Bonne Femme Creek MO 15 miles

MISSOURI RIVER AQUATIC SUBSECTION

Small creek feeding the Missouri River and arising in the glaciated uplands of the adjacent Central Tallgrass ecoregion; contains a population of the imperiled Topeka Shiner. Located south of Columbia, Missouri, much of this small watershed is threatened by suburban and rural residential development pressures. Riparian areas lack native vegetation cover with crops or pasture up to the banks of the stream.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- altered flow regime

Community Targets

Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
NOTROPIS TOPEKA	TOPEKA SHINER	G2	R	Fish
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Three Creeks Conservation Area	Missouri Department of Conservation

7 Bourbeuse River MO 91 miles

MISSOURI RIVER AQUATIC SUBSECTION

Small tributary river of the Meramec River with silt, gravel, and sand substrates hosting 20 endemic or modal species. These species include the once wide ranging but now restricted and imperiled Scaleshell and Spectaclecase mussels. The historically large mussel beds of the lower reaches of the Bourbeuse River have been reduced significantly by past commercial harvesting and water quality degradation. Continued urban and rural residential development threatens this river system. Mussel beds are threatened by destabilization of the river channel through the reduction of native riparian vegetation, gravel mining, and altered hydrology within the basin.

Threat Rank - High

Principal stresses
- contaminated urban/suburban runoff
- habitat disturbance
- nutrient loading
- altered flow regime

Community Targets

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
CUMBERLANDIA MONODONTA	SPECTACLECASE	G2G3	R	Invertebrate-Mussel
LAMPSILIS REEVIANA BRITTSI	BRITTS MUSSEL	G3T2	OZ	Invertebrate-Mussel
LEPTODEA LEPTODON	SCALESHELL	G1	MOD	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Chouteau Claim Access	Missouri Department of Conservation
Mayer's Landing Access	Missouri Department of Conservation
Mill Rock Access	Missouri Department of Conservation
Reiker Ford Access	Missouri Department of Conservation
Uhlemeyer (Dr. Henry A. & Amalia) Access	Missouri Department of Conservation
Union Access	Missouri Department of Conservation
Wenkel Ford Access	Missouri Department of Conservation

8 Brush Creek MO 10 miles

MISSOURI RIVER AQUATIC SUBSECTION

Small gravel-bottomed creek system in the wooded hills of the Sac River basin, with 13 endemic or modal species, including a small population of the imperiled Niangua Darter. Threats include cattle grazing in riparian areas with access to stream channels, conversion of native woodland and savanna watershed to pasture, and reduced native vegetation in riparian areas.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLOPLITES CONSTELLATUS	OZARK BASS	G5	OZ	Fish
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA NIANGUAE	NIANGUA DARTER	G2	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish

Managed Areas

Area Name	Owner
Blackjack Access	Missouri Department of Conservation
Birdsong Conservation Area	Missouri Department of Conservation

9 Bryant Creek MO 39 miles

WHITE RIVER AQUATIC SUBSECTION

Large, high-quality tributary creek system with numerous small springs and gravel substrate in the North Fork White River basin. Contains 22 endemic or modal species, including the imperiled snail Arkansas Medula, which is globally restricted to the North Fork White River basin. Most of the basin is rugged hills in private forestry, but rural residential development pressure along with conversion of native vegetation to cool season pasture threatens water quality.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Creek/Headwater Stream

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLOPLITES CONSTELLATUS	OZARK BASS	G5	OZ	Fish
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA JULIAE	YOKE DARTER	G4?	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS PILSBRYI (NOTROPIS)	DUSKYSTRIPE SHINER	G5?	OZ	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS ALBATER	OZARK MADTOM	G4?	OZ	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
ORCONECTES LONGIDIGITUS	LONG-PINCERED CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES NEGLECTUS CHAENODACTYLUS	GAPE-FINGERED RINGED CRAYFISH	G5T2	OZ	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
TOXOLASMA LIVIDUS (GLANS)	PURPLE LILLIPUT	G2T2	R	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
LEPTOXIS ARKANSENSIS	ARKANSAS MUDALIA	G1	OZ	Invertebrate-Snail

Managed Areas

Area Name	Owner
Cook (Flo) Access	Missouri Department of Conservation
Rippee Conservation Area	Missouri Department of Conservation
Sycamore Access	Missouri Department of Conservation
Vera Cruz Access	Missouri Department of Conservation
Warren Bridge Access	Missouri Department of Conservation
Norfork Lake	US Army Corp of Engineers

10 Buffalo River AR 137 miles

WHITE RIVER AQUATIC SUBSECTION

Major tributary to the White River, with its headwaters in the Boston Mountains where it flows through the Springfield and Salem Plateaus before reaching the White River. The Buffalo has a mostly forested watershed of 1340 square miles. Approximately 20% (174,855 acres) of this watershed is located within the Ozark National Forest, and was designated a National River in 1972. The Buffalo is home to 48 native fish species.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Creek/Headwater Stream

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLOPLITES CONSTELLATUS	OZARK BASS	G5	OZ	Fish
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish

CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	MOD	Fish
ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	G3G4Q	OZ	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA EUZONUM EUZONUM	ARKANSAS SADDLED DARTER	G3G4	OZ	Fish
ETHEOSTOMA JULIAE	YOKE DARTER	G4?	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS PILSBRYI (NOTROPIS)	DUSKYSTRIPE SHINER	G5?	OZ	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTROPIS OZARCANUS	OZARK SHINER	G3	OZ	Fish
NOTURUS ALBATER	OZARK MADTOM	G4?	OZ	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
NOTURUS FLAVATER	CHECKERED MADTOM	G3G4	OZ	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
ORCONECTES LONGIDIGITUS	LONG-PINCERED CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES NEGLECTUS	RINGED CRAYFISH	G5	MOD	Invertebrate-Crayfish
ACRONEURIA OZARKENSIS	A PERLID STONEFLY	G2	R	Invertebrate-Insect
CYPROGENIA ABERTI	WESTERN FANSHELL	G2	OZ	Invertebrate-Mussel
FUSCONAIA OZARKENSIS	OZARK PIGTOE	G3	MOD	Invertebrate-Mussel
LAMPSILIS REEVIANA BREVICULA	BROKEN RAYS	G3T2	OZ	Invertebrate-Mussel
VENUSTACONCHA PLEASII	BLEEDINGTOOTH	G3G4	OZ	Invertebrate-Mussel
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Gene Rush/ Buffalo River Wildlife Management Area	Arkansas Game and Fish Commission
Ozark National Forest	USDA Forest Service
Ozark National Forest	USDA Forest Service
Buffalo National River	US National Park Service
Lower Buffalo Wilderness	US National Park Service
Ponca Wilderness	US National Park Service
Upper Buffalo Wilderness	US National Park Service

11 Castor River MO 50 miles

WHITE RIVER AQUATIC SUBSECTION

Small river draining the southeastern portion of the igneous knobs region of the St Francois Mountains. The warm water and sand, gravel and boulder substrates support 20 endemic or modal species such as the Western Fanshell mussel. Mussel beds also contain a population of the imperiled Southern Hickorynut. While much of the watershed is in private forestry, nearly all the riparian and floodplain areas have been converted to cool season pasture. Cattle access to streams threatens the site.

Threat Rank - High

Principal stresses - sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish

COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PIMEPHALES TENELLUS PARVICEPS	EASTERN SLIM MINNOW	G5T2T3	MOD	Fish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
CYPROGENIA ABERTI	WESTERN FANSHELL	G2	OZ	Invertebrate-Mussel
LAMPSILIS REEVIANA BREVICULA	BROKEN RAYS	G3T2	OZ	Invertebrate-Mussel
OBOVARIA JACKSONIANA	SOUTHERN HICKORYNUT	G1G2	DJ	Invertebrate-Mussel
VENUSTACONCHA PLEASII	BLEEDINGTOOTH	G3G4	OZ	Invertebrate-Mussel
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Castor River Conservation Area	Missouri Department of Conservation
Maple Flats Access	Missouri Department of Conservation
Sweetgum Access	Missouri Department of Conservation

13 Clear Creek IL 20 miles

MISSISSIPPI RIVER AQUATIC SUBSECTION

Clear water stream and major tributaries composed of sand, gravel, and rock substrates. Although it has been channelized, Clear Creek supports a very high diversity of fish species, including the ecoregionally significant Banded Sculpin. Clear Creek has been identified by the Illinois Natural History Survey as an outstanding example of the rivers and creeks of the bottomlands in the Ozarks region of extreme southern Illinois.

Threat Rank - Low

Community Targets
Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish

Managed Areas

Area Name	Owner
Trail of Tears State Forest	Illinois Department of Natural Resources
Union County	Illinois State Conservation Area
McClure Shale Glade	Illinois State Nature Preserve
Shawnee National Forest	USDA Forest Service

14 Eleven Point River ARMO 82 miles

WHITE RIVER AQUATIC SUBSECTION

Large undammed cold water river system with gravel and dolomite boulder substrate and a high base flow fed from numerous large to medium size springs, hosting an impressive 37 endemic or modal species including the rapidly declining Ozark Hellbender along with an obligate parasite, the Ozark Hellbender Leech, the imperiled Western Fanshell mussel, the only known location for the Contorted Ochrotrichian Micro Caddisfly (in the spring run of Greer Spring), and the restricted endemic Coldwater Crayfish. While a portion of the Eleven Point River is protected as Wild and Scenic River by the Mark Twain National Forest, much of the watershed is in private ownership of forest and cool-season pasture. Extensive portions of the lower reaches of this site have riparian and floodplain habitat converted to pasture. Threats include conversion of private forest lands to pasture, sedimentation from rural residential development in the upper portions of the watershed, and incompatible grazing practices in riparian areas.

Threat Rank - Medium

Community Targets

Large River

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CRYTOBRANCHUS ALLEGANIENSIS BISHOPI	OZARK HELLBENDER	G4T3	OZ	Amphibian
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	MOD	Fish
ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	G3G4Q	OZ	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA EUZONUM EUZONUM	ARKANSAS SADDLED DARTER	G3G4	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA UNIPORUM	CURRENT ORANGETHROAT DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE (BLACK RIVER RACE)	BLACK RIVER BANDED DARTER	G5T?	OZ	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS PILSBRYI (NOTROPIS)	DUSKYSTRIPE SHINER	G5?	OZ	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTROPIS OZARCANUS	OZARK SHINER	G3	OZ	Fish
NOTURUS ALBATER	OZARK MADTOM	G4?	OZ	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
NOTURUS FLAVATER	CHECKERED MADTOM	G3G4	OZ	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
CAMBARUS HUBBSI	HUBB'S CRAYFISH	G5	OZ	Invertebrate-Crayfish
ORCONECTES EUPUNCTUS	COLDWATER CRAYFISH	G2	OZ	Invertebrate-Crayfish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
AGAPETUS ARTESUS	ARTESIAN AGAPETUS CADDISFLY	G?	OZ	Invertebrate-Insect
HYDROPSYCHE PIATRIX	NET-SPINNING CADDISFLY	G?	OZ	Invertebrate-Insect
OCHROTRICHIA CONTORTA	CONTORTED OCHROTRICHIAN MICRO CADDISFLY	G?	OZ	Invertebrate-Insect
CYPROGENIA ABERTI	WESTERN FANSHELL	G2	OZ	Invertebrate-Mussel
FUSCONAIA OZARKENSIS	OZARK PIGTOE	G3	MOD	Invertebrate-Mussel
LAMPSILIS REEVIANA BREVICULA	BROKEN RAYS	G3T2	OZ	Invertebrate-Mussel
TOXOLASMA LIVIDUS (GLANS)	PURPLE LILLIPUT	G2T2	R	Invertebrate-Mussel
VENUSTACONCHA PLEASII	BLEEDINGTOOTH	G3G4	OZ	Invertebrate-Mussel
BATRACOBDELLA CRYPTOBRANCHII	OZARK HELLBENDER LEECH	--	OZ	Invertebrate-Other

ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Mark Twain National Forest	USDA Forest Service
Myrtle Access	Missouri Department of Conservation

15 Elk River MO 68 miles

ARKANSAS RIVER AQUATIC SUBSECTION

Small Ozark tributary system to the Spring River, with gravel substrate and numerous small springs hosting 29 endemic or modal species, including the imperiled Western Fanshell, Neosho Mucket, Broken Rays and Purple Lilliput, and several species endemic to the basin: Neosho Midget Crayfish, Neosho Madtom, and Chert Pebblesnail. Threats include reduced or eliminated native riparian vegetation, nutrients and sedimentation from inappropriate cattle grazing in riparian areas, forested lands converted to cool-season pasture, and nutrient loading from confined animal feed operations.

Threat Rank - Medium

Community Targets

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLOPLITES CONSTELLATUS	OZARK BASS	G5	OZ	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
CYPRINELLA CAMURA (NOTROPIS)	BLUNTFACE SHINER	G5	MOD	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII (AR RACE)	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA MICROPERCA OZARKANUS	OZARK LEAST DARTER	G5T?	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS CARDINALIS (NOTROPIS)	CARDINAL SHINER	G4?	OZ	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
NOCOMIS ASPER	REDSPOT CHUB	G3G4?	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
NOTURUS PLACIDUS	NEOSHO MADTOM	G2	OZ	Fish
ORCONECTES LONGIDIGITUS	LONG-PINCERED CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES MACRUS	NEOSHO MIDGET CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES NEGLECTUS	RINGED CRAYFISH	G5	MOD	Invertebrate-Crayfish
CYPROGENIA ABERTI	WESTERN FANSHELL	G2	OZ	Invertebrate-Mussel
FUSCONAIA OZARKENSIS	OZARK PIGTOE	G3	MOD	Invertebrate-Mussel
LAMPSILIS RAFINESQUEANA	NEOSHO MUCKET	G2	OZ	Invertebrate-Mussel
LAMPSILIS REEVIANA BREVICULA	BROKEN RAYS	G3T2	OZ	Invertebrate-Mussel
TOXOLASMA LIVIDUS (GLANS)	PURPLE LILLIPUT	G2T2	R	Invertebrate-Mussel
VENUSTACONCHA PLEASII	BLEEDINGTOOTH	G3G4	OZ	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
SOMATOGYRUS ROSEWATERI	CHERT PEBBLESNAIL	G1	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Deep Ford Access	Missouri Department of Conservation
Mount Shira Access	Missouri Department of Conservation
Big Sugar Creek State Park	Missouri Department of Natural Resources

16 Gasconade River MO 228 miles

MISSOURI RIVER AQUATIC SUBSECTION

One of the largest remaining undammed river systems in central North America, this large tributary of the lower Missouri River, hosts 23 endemic or modal species and a suite of critically imperiled mussels in the bed of the lower river. Gravel substrates of the upper river provide habitat for imperiled basin endemic Bluestripe Darter. Threats to the river include habitat disturbance from gravel mining, nutrient loading from confined animal feed operations and municipal wastewater discharges, oil spills from pipelines, and conversion of native vegetation in the watershed and riparian areas to pasture and row-crop agriculture.

Threat Rank - Medium

Community Targets

Large River

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA MICROPERCA OZARKANUS	OZARK LEAST DARTER	G5T?	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA CYMATOTAENIA	BLUESTRIPE DARTER	G2	OZ	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
ACRONEURIA OZARKENSIS	A PERLID STONEFLY	G2	R	Invertebrate-Insect
SOMATOCHLORA OZARKENSIS	OZARK EMERALD DRAGONFLY	G3	OZ	Invertebrate-Insect
CUMBERLANDIA MONODONTA	SPECTACLECASE	G2G3	R	Invertebrate-Mussel
LAMPSILIS ABRUBTA	PINK MUCKET	G2	R	Invertebrate-Mussel
LEPTODEA LEPTODON	SCALESHELL	G1	MOD	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Adams (Anna M.) Access	Missouri Department of Conservation
Allen (Wilbur) Memorial Conservation Area	Missouri Department of Conservation
Bell Chute Access	Missouri Department of Conservation
Buzzard Bluff Access	Missouri Department of Conservation

Cooper Hill Conservation Area	Missouri Department of Conservation
Fredericksburg Ferry Access	Missouri Department of Conservation
Gasconade Hills Conservation Area	Missouri Department of Conservation
Gasconade Park Access	Missouri Department of Conservation
Helds Island Access	Missouri Department of Conservation
Jerome Access	Missouri Department of Conservation
Paydown Access	Missouri Department of Conservation
Pointers Creek Access	Missouri Department of Conservation
Riddle Bridge Access	Missouri Department of Conservation
Rollins Ferry Access	Missouri Department of Conservation
Schlicht Springs Access	Missouri Department of Conservation
Mark Twain National Forest	USDA Forest Service

17 Huzzah/Courtois Creeks MO 98 miles

MISSOURI RIVER AQUATIC SUBSECTION

Small spring-fed creek systems with gravel substrates in the upper Meramec River basin host 20 endemic or modal species, including the Freckled Crayfish, which is globally restricted to this portion of the Meramec basin. Much of the watersheds of these two creeks are protected by the Mark Twain National Forest but only a limited amount of riparian and floodplain is protected. Threats include gravel mining, grazing animal access to stream channels, and conversion of private timber lands to cool season pasture.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Creek/Headwater Stream

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
CAMBARUS MACULATUS	FRECKLED CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES MEDIUS	SADDLEBACK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Mark Twain National Forest	USDA Forest Service
Huzzah Conservation Area	Missouri Department of Conservation
Dillard Mill State Historic Site	Missouri Department of Natural Resources

18 Jacks Fork River MO 34 miles

WHITE RIVER AQUATIC SUBSECTION

Small spring-fed gravel substrate tributary of the Current River, providing habitat for 27 endemic or modal species, including a fish globally restricted to this basin, the Current River Saddled Darter, and the rapidly declining Ozark Hellbender. A significant portion of the riparian and floodplain of this river is protected by the Ozark National Scenic Riverways, but much of the watershed is in private forestry, cool-season grazed pasture, and rural residential land use. Threats include excessive in-stream recreational horseback riding, conversion of uplands to cool season pasture, and pollution from urban and residential development in the watershed.

Threat Rank - Medium

Community Targets

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CRYTOBRANCHUS ALLEGANIENSIS BISHOPI	OZARK HELLBENDER	G4T3	OZ	Amphibian
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	MOD	Fish
ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	G3G4Q	OZ	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA EUZONUM ERIZONUM	CURRENT RIVER SADDLED DARTER	G4T2?	OZ	Fish
ETHEOSTOMA UNIPORUM	CURRENT ORANGETHROAT DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE (BLACK RIVER RACE)	BLACK RIVER BANDED DARTER	G5T?	OZ	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTROPIS OZARCANUS	OZARK SHINER	G3	OZ	Fish
NOTURUS ALBATER	OZARK MADTOM	G4?	OZ	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
NOTURUS FLAVATER	CHECKERED MADTOM	G3G4	OZ	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
CAMBARUS HUBBSI	HUBB'S CRAYFISH	G5	OZ	Invertebrate-Crayfish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
HYDROPSYCHE PIATRIX	NET-SPINNING CADDISFLY	G?	OZ	Invertebrate-Insect
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Angeline Conservation Area	Missouri Department of Conservation
Buttin Rock Access	Missouri Department of Conservation
Ozark National Scenic Riverways	US National Park Service

20 Kings River AR 60 miles

WHITE RIVER AQUATIC SUBSECTION

Last undammed tributary river in the upper White River basin, hosting 30 endemic or modal species, including the only known location for a Winter Stonefly (*Allocapnia ozarkana*), one of two locations for another Winter Stonefly (*A. jeanae*) and the White River endemic Broken Rays. Threats to the site include pollution from confined animal feed operations, gravel mining for road maintenance, and sedimentation and nutrient loading from incompatible cattle grazing in riparian areas.

Threat Rank - High

Principal stresses - sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Creek/Headwater Stream

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLOPLITES CONSTELLATUS	OZARK BASS	G5	OZ	Fish
ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	G3G4Q	OZ	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA EUZONUM EUZONUM	ARKANSAS SADDLED DARTER	G3G4	OZ	Fish
ETHEOSTOMA FLABELLARE (WHITE RIVER FORM)	WHITE RIVER FANTAIL DARTER	G5	OZ	Fish
ETHEOSTOMA JULIAE	YOKE DARTER	G4?	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS PILSBRYI (NOTROPIS)	DUSKYSTRIPE SHINER	G5?	OZ	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTROPIS OZARCANUS	OZARK SHINER	G3	OZ	Fish
NOTURUS ALBATER	OZARK MADTOM	G4?	OZ	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
NOTURUS FLAVATER	CHECKERED MADTOM	G3G4	OZ	Fish
PIMEPHALES TENELLUS PARVICEPS	EASTERN SLIM MINNOW	G5T2T3	MOD	Fish
ORCONECTES NEGLECTUS	RINGED CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
PROCAMBARUS LIBERORUM	BURROWING CRAYFISH	G4	MOD	Invertebrate-Crayfish
ALLOCAPNIA JEANAE	WINTER STONEFLY	G2	OZ	Invertebrate-Insect
ALLOCAPNIA OZARKANA	WINTER STONEFLY	G2	OZ	Invertebrate-Insect
FUSCONAIA OZARKENSIS	OZARK PIGTOE	G3	MOD	Invertebrate-Mussel
LAMPSILIS REEVIANA BREVICULA	BROKEN RAYS	G3T2	OZ	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Madison County Wildlife Management Area	Arkansas Game and Fish Commission
Arkansas Natural Heritage Site	Arkansas Natural Heritage Commission
Ozark National Forest	USDA Forest Service

21 Little Black River MO 27 miles

WHITE RIVER AQUATIC SUBSECTION

Creek and small river system with gravel substrate in the Current River basin, hosting 11 endemic or modal species including the last known location for the globally imperiled and possibly extinct Curtis Pearlymussel. A total of 39 species of mussels have been documented from the Little Black River. Threats include gravel mining and in-stream habitat disturbance and stream channel instability from conversion of riparian vegetation to cool-season pasture.

Threat Rank - Medium

Community Targets
Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA UNIPORUM	CURRENT ORANGETHROAT DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE (BLACK RIVER RACE)	BLACK RIVER BANDED DARTER	G5T?	OZ	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
CYPROGENIA ABERTI	WESTERN FANSHELL	G2	OZ	Invertebrate-Mussel
TOXOLASMA LIVIDUS (GLANS)	PURPLE LILLIPUT	G2T2	R	Invertebrate-Mussel
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Area

Area Name	Owner
Greenville Ford Access	Missouri Department of Conservation
Little Black Conservation Area	Missouri Department of Conservation
Mudpuppy Conservation Area	Missouri Department of Conservation
Mark Twain National Forest	USDA Forest Service

22 Little Niangua River MO 28 miles

MISSOURI RIVER AQUATIC SUBSECTION

Tributary creek system of the Osage River via Lake of the Ozarks, with gravel substrate hosting 13 endemic or modal species, including the imperiled Niangua Darter. Threats to the river system include reduced or eliminated native riparian vegetation, nutrients and sedimentation from inappropriate cattle grazing in riparian areas, and conversion of forested uplands in the watershed to cool-season pasture.

Threat Rank - High
Principal stresses - sedimentation
- habitat disturbance
- nutrient loading

Community Targets
Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA MICROPERCA OZARKANUS	OZARK LEAST DARTER	G5T?	OZ	Fish
ETHEOSTOMA NIANGUAE	NIANGUA DARTER	G2	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish

FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

23 Little Red River AR 259 miles

WHITE RIVER AQUATIC SUBSECTION

Major tributary of the lower White River, with 1,792 square mile watershed located entirely within the lower Boston Mountains. The 40,500 acre Greers Ferry Lake completed in 1963 by the Army Corps of Engineers bisects the river, cutting off several key tributaries from the mainstem. The portfolio site, therefore, includes only the section of the river and its tributaries above the impoundment. One percent (12,323 acres) of the watershed is located within the Ozark National Forest. The Little Red includes 83 native fish, including the Yellowcheek Darter, *Etheostoma moorei*, a watershed endemic.

Threat Rank – Very High

Principal stresses
- sedimentation
- altered flow regime
- habitat disturbance
- habitat fragmentation
- nutrient loading

Community Targets

Creek/Headwater Stream

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	MOD	Fish
ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	G3G4Q	OZ	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (LITTLE RED SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA EUZONUM EUZONUM	ARKANSAS SADDLED DARTER	G3G4	OZ	Fish
ETHEOSTOMA MOOREI	YELLOWCHEEK DARTER	G1	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS PILSBRYI (NOTROPIS)	DUSKYSTRIPE SHINER	G5?	OZ	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTURUS ALBATER	OZARK MADTOM	G4?	OZ	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA NASUTA	LONGNOSE DARTER	G3	MOD	Fish
PIMEPHALES TENELLUS PARVICEPS	EASTERN SLIM MINNOW	G5T2T3	MOD	Fish
ORCONECTES LONGIDIGITUS	LONG-PINCERED CRAYFISH	G4	OZ	Invertebrate-Crayfish
ALLOCAPNIA ORIBATA	WINTER STONEFLY	G1	OZ	Invertebrate-Insect
PADUNIELLA NEARCTICA	NEARTIC PADUNIELLAN CADDISFLY	G1?	OZ	Invertebrate-Insect
CYPROGENIA ABERTI	WESTERN FANSHELL	G2	OZ	Invertebrate-Mussel
FUSCONAIA OZARKENSIS	OZARK PIGTOE	G3	MOD	Invertebrate-Mussel
LAMPSILIS STRECKERI	SPECKLED POCKETBOOK	G1Q	OZ	Invertebrate-Mussel
VENUSTACONCHA PLEASII	BLEEDINGTOOTH	G3G4	OZ	Invertebrate-Mussel
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Gulf Mountain Wildlife Management Area	Arkansas Game and Fish Commission
Ozark National Forest	USDA Forest Service

24 Maries River MO 33 miles

MISSOURI RIVER AQUATIC SUBSECTION

Small tributary creek system of the Osage River, with gravel substrate hosting 14 endemic or modal species, including the imperiled Niangua Darter. Threats to the river system include destruction of native riparian vegetation, nutrient and sediment influx from inappropriate cattle grazing in riparian areas, and conversion of forested uplands in the watershed to cool-season pasture.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA NIANGUAE	NIANGUA DARTER	G2	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Bruns (Dr. Bernard) Access	Missouri Department of Conservation

25 Meramec River MO 158 miles

MISSOURI RIVER AQUATIC SUBSECTION

This large river system is a tributary of the Mississippi River below St. Louis, but has biological affinities to the Missouri River system and associated tributaries, sharing numerous fish and mussel species in common with the Gasconade, Osage, and Missouri rivers. The Meramec ranges from a spring-fed gravel bottom stream in the upper basin to a small then large warm water system in the lower basin, altogether hosting 26 endemic or modal species. Six of these target species have their best, most viable global populations at this site. The lower Meramec basin, as well as the lower portion of the Bourbeuse River, historically provided an unusually stable stream channel in fine substrate that sustained extremely large mussel beds. Today, the mussel fauna is still impressive with over 20 native species known. Upper reaches of the river contain Freckled and Belted crayfish, both globally restricted to the southern portion of the Meramec River basin. Range-restricted endemic invertebrates such as the Ozark Clubtail Dragonfly, Ozark Snaketail Dragonfly, Artesian Agapetus Caddisfly, and Missouri Glyphopsyche Caddisfly occur in the upper river. While the more rugged portions of the upper Meramec watershed are in native forest and woodland cover, much of the more gently rolling portions of the basin have been converted to grazed cool season pasture and urban and rural residential use. The lower portions of the basin are in the rapidly expanding southern and western portions of the St. Louis metropolitan area, and face altered hydrology and pollution from urban development and suburban sprawl. Riparian areas, including stream channels, in the upper basin are used extensively in cattle grazing on private lands and contribute to sedimentation and nutrient loading. Gravel mining poses significant threats to mussel beds of the lower river.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- nutrient loading
- contaminated urban/suburban runoff

Community Targets

Creek/Headwater Stream

Large River

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
CAMBARUS MACULATUS	FRECKLED CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES HARRISONII	BELTED CRAYFISH	G3	OZ	Invertebrate-Crayfish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES MEDIUS	SADDLEBACK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
AGAPETUS ARTESUS	ARTESIAN AGAPETUS CADDISFLY	G?	OZ	Invertebrate-Insect
GOMPHUS OZARKENSIS	OZARK CLUBTAIL DRAGONFLY	G4	OZ	Invertebrate-Insect
OPHIOGOMPHUS WESTFALLI	OZARK SNAKETAIL DRAGONFLY	G3	OZ	Invertebrate-Insect
CUMBERLANDIA MONODONTA	SPECTACLECASE	G2G3	R	Invertebrate-Mussel
LAMPSILIS ABRUBTA	PINK MUCKET	G2	R	Invertebrate-Mussel
LAMPSILIS REEVIANA BRITTSI	BRITTS MUSSEL	G3T2	OZ	Invertebrate-Mussel
LEPTODEA LEPTODON	SCALESHELL	G1	MOD	Invertebrate-Mussel

ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
MICROMENETUS SAMPSONI	A SNAIL	G2G3	R	Invertebrate-Snail
PYRGULOPSIS SCALARIFORMIS	MOSS PYRG	G1	R	Invertebrate-Snail
VIVIPARUS SUBPURPUREUS	OLIVE MYSTERYSNAIL	G2G3	R	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Allenton Access	Missouri Department of Conservation
Blue Springs Creek Conservation Area	Missouri Department of Conservation
Campbell Bridge Access	Missouri Department of Conservation
Catawissa Conservation Area	Missouri Department of Conservation
Chouteau Claim Access	Missouri Department of Conservation
Emmenegger Nature Park	Missouri Department of Conservation
Flamm City Access	Missouri Department of Conservation
Green Meadow Access	Missouri Department of Conservation
Huzzah Conservation Area	Missouri Department of Conservation
Meramec Conservation Area	Missouri Department of Conservation
Meramec Conservation Area - Heynes (Arthur G.) Memorial Anne	Missouri Department of Conservation
Pacific Palisades Conservation Area	Missouri Department of Conservation
Possum Woods Conservation Area	Missouri Department of Conservation
Redhorse Access	Missouri Department of Conservation
River'round Conservation Area	Missouri Department of Conservation
Sand Ford Access	Missouri Department of Conservation
Sappington Bridge Access	Missouri Department of Conservation
Scotts Ford Access	Missouri Department of Conservation
Teszars Woods Conservation Area	Missouri Department of Conservation
Times Beach Access	Missouri Department of Conservation
Valley Park Access	Missouri Department of Conservation
Woods (Woodson K.) Memorial Conservation Area	Missouri Department of Conservation
Castlewood State Park	Missouri Department of Natural Resources
Meramec State Park	Missouri Department of Natural Resources
Onondaga Cave State Park	Missouri Department of Natural Resources
Robertsville State Park	Missouri Department of Natural Resources
Zahorsky Woods	The Nature Conservancy

26 Moniteau Creek MO 37 miles

MISSOURI RIVER AQUATIC SUBSECTION

Small Ozark river tributary to the Missouri River, with gravel and silt substrate hosting 13 endemic or modal species, including the imperiled Britt's Mussel and Topeka Shiner . Threats to the river system include reduced or eliminated native riparian vegetation, conversion of forested uplands in the watershed to cool-season pasture, and sedimentation and rapid runoff from row crop agriculture.

Threat Rank - High

Principal stresses - sedimentation
- habitat disturbance

Community Targets

Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish

ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	OZ	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTROPIS TOPEKA	TOPEKA SHINER	G2	R	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
LAMPSILIS REEVIANA BRITTSI	BRITTS MUSSEL	G3T2	OZ	Invertebrate-Mussel
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Marion Bottoms	Missouri Department of Conservation

27 Mulberry River AR 64 miles

ARKANSAS RIVER AQUATIC SUBSECTION

Major tributary of the Arkansas River with a watershed of 719 square miles located within the Boston Mountains. Approximately 29% (230,175 acres) of the upper Mulberry watershed is located within the Ozark National Forest. The Mulberry is home to 56 native fish species.

Threat Rank - Medium

Principal stresses - sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Creek/Headwater Stream

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CYPRINELLA CAMURA (NOTROPIS)	BLUNTFACE SHINER	G5	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII (AR RACE)	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
LUXILUS CARDINALIS (NOTROPIS)	CARDINAL SHINER	G4?	OZ	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA NASUTA	LONGNOSE DARTER	G3	MOD	Fish
PROCAMBARUS LIBERORUM	BURROWING CRAYFISH	G4	MOD	Invertebrate-Crayfish
CUMBERLANDIA MONODONTA	SPECTACLECASE	G2G3	R	Invertebrate-Mussel
LEPTODEA LEPTODON	SCALESHELL	G1	MOD	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Ozark National Forest	USDA Forest Service

28 Niangua River MO 46 miles

MISSOURI RIVER AQUATIC SUBSECTION

Small tributary river system of the Osage River via Lake of the Ozarks with gravel substrate and numerous springs hosting 22 endemic or modal species, including the imperiled Britt's Mussel, Bluestripe Darter, and Niangua Darter. Threats to the river system include reduced or eliminated native riparian vegetation, nutrients and sedimentation from inappropriate cattle grazing in riparian areas, conversion of forested lands cool-season pasture, nutrient loading from confined animal feed operations and rural residential development, oil and chemical spills from pipelines, and gravel mining.

Threat Rank - Medium

Community Targets

Creek/Headwater Stream

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLOPLITES CONSTELLATUS	OZARK BASS	G5	OZ	Fish
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA MICROPERCA OZARKANUS	OZARK LEAST DARTER	G5T?	OZ	Fish
ETHEOSTOMA NIANGUAE	NIANGUA DARTER	G2	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA CYMATOTAENIA	BLUESTRIPE DARTER	G2	OZ	Fish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
LAMPSILIS REEVIANA BRITTSI	BRITTS MUSSEL	G3T2	OZ	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Barclay Conservation Area	Missouri Department of Conservation
Bennett Spring Access	Missouri Department of Conservation
Berry Bluff Conservation Area	Missouri Department of Conservation
Big John Access	Missouri Department of Conservation
Charity Access	Missouri Department of Conservation
Lead Mine Conservation Area	Missouri Department of Conservation
Moon Valley Access	Missouri Department of Conservation
Prosperine Access	Missouri Department of Conservation
Williams Ford Access	Missouri Department of Conservation

29 North Fork White River MO 98 miles

WHITE RIVER AQUATIC SUBSECTION

Cold water tributary river system of the middle White River basin, with gravel and dolomite boulder substrate and a high base flow fed from numerous large to medium size springs, hosting an impressive 35 endemic or modal species including the rapidly declining Ozark Hellbender along with an obligate parasite, the Ozark Hellbender Leech, the imperiled Reeve's Mussel, known only from the North Fork White River, and two snails endemic to this basin: the Arkansas Medula and the Ozark Pyrg. Six target species have their best, most viable, populations at this site. While a portion of the watershed is protected by the Mark Twain National Forest, much of the watershed in private ownership is forest and cool-season pasture. The lower reaches of this site flow into Bull Shoals Lake, a reservoir that blocks connection of this basin with the mainstem of the White River. Much of the riparian and floodplain habitat in private ownership has been converted to pasture. Threats include conversion of private forest lands to pasture, sedimentation from rural residential and road development in the upper portions of the watershed, incompatible grazing practices in riparian areas, and gravel mining.

Threat Rank - Medium

Community Targets

Creek/Headwater Stream

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CRYTOBRANCHUS ALLEGANIENSIS BISHOPI	OZARK HELLBENDER	G4T3	OZ	Amphibian
AMBLOPLITES CONSTELLATUS	OZARK BASS	G5	OZ	Fish
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	MOD	Fish
ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	G3G4Q	OZ	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA EUZONUM EUZONUM	ARKANSAS SADDLED DARTER	G3G4	OZ	Fish
ETHEOSTOMA JULIAE	YOKE DARTER	G4?	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS PILSBRYI (NOTROPIS)	DUSKYSTRIPE SHINER	G5?	OZ	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTROPIS OZARCANUS	OZARK SHINER	G3	OZ	Fish
NOTURUS ALBATER	OZARK MADTOM	G4?	OZ	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
NOTURUS FLAVATER	CHECKERED MADTOM	G3G4	OZ	Fish
ORCONECTES LONGIDIGITUS	LONG-PINCERED CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES NEGLECTUS CHAENODACTYLUS	GAPE-FINGERED RINGED CRAYFISH	G5T2	OZ	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
PADUNIELLA NEARCTICA	NEARTIC PADUNIELLAN CADDISFLY	G1?	OZ	Invertebrate-Insect
FUSCONAIA OZARKENSIS	OZARK PIGTOE	G3	MOD	Invertebrate-Mussel
LAMPSILIS REEVIANA REEVIANA	REEVE'S MUSSEL	G3T1T2	OZ	Invertebrate-Mussel
TOXOLASMA LIVIDUS (GLANS)	PURPLE LILLIPUT	G2T2	R	Invertebrate-Mussel
VENUSTACONCHA PLEASII	BLEEDINGTOOTH	G3G4	OZ	Invertebrate-Mussel
BATRACOBDELLA CRYPTOBRANCHII	OZARK HELLBENDER LEECH	--	OZ	Invertebrate-Other
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
LEPTOXIS ARKANSENSIS	ARKANSAS MUDALIA	G1	OZ	Invertebrate-Snail
PYRGULOPSIS OZARKENSIS	OZARK PYRG	G1	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Blair Bridge Access	Missouri Department of Conservation
Hebron Access	Missouri Department of Conservation
Patrick Bridge Access	Missouri Department of Conservation
Norfork Lake	US Army Corp of Engineers
Mark Twain National Forest	USDA Forest Service

30 Osage Fork Gasconade River MO 66 miles

MISSOURI RIVER AQUATIC SUBSECTION

Small Ozark tributary river system of the Gasconade River, with gravel substrate and numerous small springs containing 29 endemic or modal species, including the imperiled Bluestripe Darter, which is endemic to this basin. Threats include reduced or eliminated native riparian vegetation, nutrients and sedimentation from inappropriate cattle grazing in riparian areas, conversion of forested uplands to cool-season pasture, and nutrient loading from confined animal feed operations.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- nutrient loading
- wastewater treatment contaminants

Community Targets

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	MOD	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA MICROPERCA OZARKANUS	OZARK LEAST DARTER	G5T?	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS PILSBRYI (NOTROPIS)	DUSKYSTRIPE SHINER	G5?	OZ	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA CYMATOTAENIA	BLUESTRIPE DARTER	G2	OZ	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
PADUNIELLA NEARCTICA	NEARTIC PADUNIELLAN CADDISFLY	G1?	OZ	Invertebrate-Insect
LAMPSILIS REEVIANA BRITTSI	BRITTS MUSSEL	G3T2	OZ	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Bear Creek Conservation Area	Missouri Department of Conservation
Davis Ford Access	Missouri Department of Conservation
Drynob Access	Missouri Department of Conservation
Hazelgreen Access	Missouri Department of Conservation
Hull Ford Access	Missouri Department of Conservation
Rader Access	Missouri Department of Conservation

31 Osage River MO 62 miles

MISSOURI RIVER AQUATIC SUBSECTION

Large tributary river system of the lower Missouri River, hosting 18 endemic or modal species. A suite of imperiled mussels is found in the bed of the lower river including the Pink Mucket, Spectaclecase and Britt's Mussel. This lower river is downstream from Bagnell Dam and Lake of the Ozarks, a very large impoundment for recreation and hydropower. Threats to the river include habitat disturbance from gravel mining, altered hydrology from dam operations, exotic species introductions such as Black Carp and Zebra Mussels, and conversion of native vegetation in the watershed and riparian areas to pasture and row-crop agriculture.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- altered flow regime

Community Targets

Large River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
CUMBERLANDIA MONODONTA	SPECTACLECASE	G2G3	R	Invertebrate-Mussel
LAMPSILIS ABRUBTA	PINK MUCKET	G2	R	Invertebrate-Mussel
LAMPSILIS REEVIANA BRITTSI	BRITTS MUSSEL	G3T2	OZ	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Bat Cave Conservation Area	Missouri Department of Conservation
Bonnots Mill Access	Missouri Department of Conservation
Kings Bluff Access	Missouri Department of Conservation
Mari-Osa Access	Missouri Department of Conservation
Osage-Tavern Access	Missouri Department of Conservation

Painted Rock Conservation Area	Missouri Department of Conservation
Pikes Camp Access	Missouri Department of Conservation
Saline Valley Conservation Area	Missouri Department of Conservation
Smoky Waters Conservation Area	Missouri Department of Conservation
St. Thomas Ferry Access	Missouri Department of Conservation

32 River aux Vases MO 23 miles

MISSISSIPPI RIVER AQUATIC SUBSECTION

Small creek system feeding into the Mississippi River and originating in rugged hills around Hawn State Park, with numerous small springs and high quality headwater streams. The river hosts eight endemic or modal species. Threats include incompatible grazing activities in riparian areas, conversion of native vegetation to pasture, and rural residential development.

Threat Rank - Medium

Community Targets
Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Hawn State Park	Missouri Department of Natural Resources

33 Rocky Creek MO 8 miles

WHITE RIVER AQUATIC SUBSECTION

Small high quality warm water creek with gravel and igneous boulder substrate in the Current River basin, hosting 12 endemic or modal species including the restricted Ozark Emerald Dragonfly. Much of this creek and its watershed is in protected ownership with some private timber lands, cool-season pastures, and rural residential development. Threats include nutrient loading and sedimentation from incompatible grazing activities in riparian areas.

Threat Rank - Medium

Community Targets
Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTROPIS OZARCANUS	OZARK SHINER	G3	OZ	Fish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
SOMATOCHLORA OZARKENSIS	OZARK EMERALD DRAGONFLY	G3	OZ	Invertebrate-Insect
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail

Managed Areas

Area Name	Owner
Ozark National Scenic Riverways	US National Park Service
Rocky Creek Conservation Area	Missouri Department of Conservation

34 Roubidoux Creek MO 48 miles

MISSOURI RIVER AQUATIC SUBSECTION

Large tributary creek system of the Gasconade River with gravel substrate and numerous small springs hosting 17 endemic or modal species, including the imperiled and basin endemic Bluestripe Darter. While a significant portion of the creek flows through the Mark Twain National Forest and Fort Leonard Wood, most of the riparian areas and watershed are privately owned. Threats to the river system include reduced or eliminated native riparian vegetation, nutrients and sedimentation from inappropriate cattle grazing in riparian areas, forested uplands of the watershed converted to cool-season pasture, sedimentation from US Army training operations in Fort Leonard Wood, and urban and suburban development around the lower reaches of the creek.

Threat Rank - Medium

Community Targets

Creek/Headwater Stream

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA CYMATOTAENIA	BLUESTRIPE DARTER	G2	OZ	Fish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
CUMBERLANDIA MONODONTA	SPECTACLECASE	G2G3	R	Invertebrate-Mussel
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Mark Twain National Forest	USDA Forest Service
Fort Leonard Wood	US Department of Defense
Roubidoux Creek Conservation Area	Missouri Department of Conservation

35 Saline Creek MO 26 miles

MISSISSIPPI RIVER AQUATIC SUBSECTION

Small creek system feeding into the Mississippi River and originating in rugged hills of the Mark Twain National Forest, with high quality creek and headwater stream reaches. The creek hosts six endemic or modal species. Threats include incompatible grazing activities in riparian areas and conversion of native vegetation to pasture, unbuffered row-crop agriculture, and rural residential development.

Threat Rank - Medium

Community Targets

Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Mark Twain National Forest	USDA Forest Service
St. Mary's City Access	Missouri Department of Conservation

36 Salt Creek MO 3 miles

MISSOURI RIVER AQUATIC SUBSECTION

Small saline creek feeding into the Missouri River and arising in the glaciated uplands of the adjacent Central Tallgrass ecoregion. This site hosts no Ozark target species but represents a unique stream type for the ecoregion. Located near the historic town of Arrow Rock, Missouri, much of this small watershed is threatened by suburban and rural residential development pressures. Other threats include incompatible grazing activities in riparian areas and sedimentation from row-crop agriculture.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Creek/Headwater Stream

Managed Areas

Area Name	Owner
Booneslick State Historic Site	Missouri Department of Natural Resources
Big Muddy National Wildlife Refuge	US Fish & Wildlife Service

38 Spavinaw Creek AROK 29 miles

ARKANSAS RIVER AQUATIC SUBSECTION

Tributary to the Lower Neosho River including the creek above Spavinaw Lake, with a watershed of approximately 183 square miles that crosses the Arkansas-Oklahoma state line and is located within the Springfield Plateau its watershed. The upper reaches of the Spavinaw are influenced by urbanization associated with Northwest Arkansas.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
CYPRINELLA CAMURA (NOTROPIS)	BLUNTFACE SHINER	G5	MOD	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA MICROPERCA OZARKANUS	OZARK LEAST DARTER	G5T?	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS CARDINALIS (NOTROPIS)	CARDINAL SHINER	G4?	OZ	Fish
NOCOMIS ASPER	REDSPOT CHUB	G3G4?	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
NOTURUS PLACIDUS	NEOSHO MADTOM	G2	OZ	Fish
ORCONECTES MACRUS	NEOSHO MIDGET CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES NEGLECTUS	RINGED CRAYFISH	G5	MOD	Invertebrate-Crayfish
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

39 Spring River, AR ARMO 155 miles

WHITE RIVER AQUATIC SUBSECTION

Tributary of the Black River with a watershed of 1,217 square miles located within the Salem Plateau. Approximately 39% of the Spring River watershed lies north of the Arkansas-Missouri border. Mammoth Springs, one of the three largest springs in the Ozarks, is located in this watershed. The Spring River hosts 114 native fish species.

Threat Rank - High

Principal stresses
- sedimentation
- nutrient loading

Community Targets

Creek/Headwater Stream

Large River

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CRYTOBRANCHUS ALLEGANIENSIS BISHOPI	OZARK HELLBENDER	G4T3	OZ	Amphibian
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	MOD	Fish

ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	G3G4Q	OZ	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA EUZONUM EUZONUM	ARKANSAS SADDLED DARTER	G3G4	OZ	Fish
ETHEOSTOMA UNIPORUM	CURRENT ORANGETHROAT DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS CARDINALIS (NOTROPIS)	CARDINAL SHINER	G4?	OZ	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTROPIS OZARCANUS	OZARK SHINER	G3	OZ	Fish
NOTURUS ALBATER	OZARK MADTOM	G4?	OZ	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
NOTURUS FLAVATER	CHECKERED MADTOM	G3G4	OZ	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
PERCINA NASUTA	LONGNOSE DARTER	G3	MOD	Fish
CAMBARUS HUBBSI	HUBB'S CRAYFISH	G5	OZ	Invertebrate-Crayfish
ORCONECTES EUPUNCTUS	COLDWATER CRAYFISH	G2	OZ	Invertebrate-Crayfish
ORCONECTES MARCHANDI	MAMMOTH SPRING CRAYFISH	G2	OZ	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
HYDROPSYCHE PIATRIX	NET-SPINNING CADDISFLY	G?	OZ	Invertebrate-Insect
PADUNIELLA NEARCTICA	NEARTIC PADUNIELLAN CADDISFLY	G1?	OZ	Invertebrate-Insect
CYPROGENIA ABERTI	WESTERN FANSHELL	G2	OZ	Invertebrate-Mussel
FUSCONAIA OZARKENSIS	OZARK PIGTOE	G3	MOD	Invertebrate-Mussel
LAMPSILIS ABRUBTA	PINK MUCKET	G2	R	Invertebrate-Mussel
LEPTODEA LEPTODON	SCALESHELL	G1	MOD	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Harold E. Alexander Wildlife Management Area	Arkansas Game and Fish Commission
Mammoth Spring State Park	Arkansas State Park
Martin (George & Vida) Access	Missouri Department of Conservation
Vanderhoef (Archie & Gracie) Memorial State Forest	Missouri Department of Conservation
Warm Fork Conservation Area	Missouri Department of Conservation
White Ranch Conservation Area	Missouri Department of Conservation

40 Spring River MOKSOK 108 miles

ARKANSAS RIVER AQUATIC SUBSECTION

Warm water river system of the Arkansas River basin with sand, gravel and silt substrate draining the northern Springfield Plain region of southwest Missouri and hosting 25 endemic or modal species including several imperiled mussels, and two basin endemics, the Neosho Midget Crayfish and Neosho Madtom. This river system could well be the most threatened of the biologically significant aquatic sites of the Ozarks. Threats include conversion of native vegetation to pasture and crop land, nutrient loading and stream eutrophication from confined animal feed operations, acidic runoff from historic mining operations and tailings, incompatible grazing activities in riparian areas, conversion of riparian buffer to pasture or crops to the stream banks, and urban and suburban development in the greater Joplin, Missouri area with wastewater discharge and rapid runoff rates.

Threat Rank – Very High

Principal stresses
- sedimentation
- habitat disturbance
- nutrient loading
- mining and wastewater contaminants
- urban/suburban runoff contaminants and altered flow

Community Targets

Creek/Headwater Stream

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
CYPRINELLA CAMURA (NOTROPIS)	BLUNTFACE SHINER	G5	MOD	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII (AR RACE)	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA MICROPERCA OZARKANUS	OZARK LEAST DARTER	G5T?	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
LUXILUS CARDINALIS (NOTROPIS)	CARDINAL SHINER	G4?	OZ	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOCOMIS ASPER	REDSPOT CHUB	G3G4?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
NOTURUS PLACIDUS	NEOSHO MADTOM	G2	OZ	Fish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES MACRUS	NEOSHO MIDGET CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES NEGLECTUS	RINGED CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
CYPROGENIA ABERTI	WESTERN FANSHELL	G2	OZ	Invertebrate-Mussel
FUSCONAIA OZARKENSIS	OZARK PIGTOE	G3	MOD	Invertebrate-Mussel
LAMPSILIS RAFINESQUEANA	NEOSHO MUCKET	G2	OZ	Invertebrate-Mussel
LAMPSILIS REEVIANA BREVICULA	BROKEN RAYS	G3T2	OZ	Invertebrate-Mussel
TOXOLASMA LIVIDUS (GLANS)	PURPLE LILLIPUT	G2T2	R	Invertebrate-Mussel
VENUSTACONCHA PLEASII	BLEEDINGTOOTH	G3G4	OZ	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Allen Bridge Access	Missouri Department of Conservation
Capps Creek Conservation Area	Missouri Department of Conservation
Carl Junction Access	Missouri Department of Conservation
Cherry Corner Access	Missouri Department of Conservation

Lime Kiln Access	Missouri Department of Conservation
Stones Corner Access	Missouri Department of Conservation
Talbot (Robert E.) Conservation Area	Missouri Department of Conservation
Tipton Ford Access	Missouri Department of Conservation
Wildcat Access	Missouri Department of Conservation
Bicentennial State Park	Oklahoma State Park
Josephine Smith State Park	Oklahoma State Park

41 St. Francis River MO 64 miles

WHITE RIVER AQUATIC SUBSECTION

Warm water river system of the White River basin with sand, gravel and igneous boulder substrate draining the igneous knobs region of the St. Francois Mountains, hosting 29 endemic or modal species including two imperiled mussels, the Western Fanshell and Southern Hickorynut, and two basin endemics: the Big Creek Crayfish and the St. Francis River Crayfish. While a portion of the watershed is protected by the Mark Twain National Forest, much of the watershed in private ownership is forest and cool-season pasture. The lower reaches of this site flow into Wappapello Lake, a reservoir that blocks connection of this basin with the mainstem of this river in the Mississippi River Alluvial Plain. Portions of the riparian and floodplain habitat in private ownership have been converted to pasture and much of the headwater are impacted by rapid urban growth of Farmington, Missouri. Threats include conversion of private forest lands to pasture, sedimentation from rural residential and road development in the upper portions of the watershed, and incompatible grazing practices in riparian areas, and mineralized runoff from historic mining areas in the basin.

Threat Rank - Medium

Community Targets

Creek/Headwater Stream

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	MOD	Fish
ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	G3G4Q	OZ	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTROPIS OZARCANUS	OZARK SHINER	G3	OZ	Fish
NOTURUS ALBATER	OZARK MADTOM	G4?	OZ	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
PERCINA NASUTA	LONGNOSE DARTER	G3	MOD	Fish
CAMBARUS HUBBSI	HUBB'S CRAYFISH	G5	OZ	Invertebrate-Crayfish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PERUNCUS	BIG CREEK CRAYFISH	G2	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
ORCONECTES QUADRUNCUS	ST. FRANCIS CRAYFISH	G2	OZ	Invertebrate-Crayfish
HYDROPSYCHE PIATRIX	NET-SPINNING CADDISFLY	G?	OZ	Invertebrate-Insect
CYPROGENIA ABERTI	WESTERN FANSHELL	G2	OZ	Invertebrate-Mussel
LAMPSILIS REEVIANA BREVICULA	BROKEN RAYS	G3T2	OZ	Invertebrate-Mussel
OBOVARIA JACKSONIANA	SOUTHERN HICKORYNUT	G1G2	DJ	Invertebrate-Mussel
VENUSTACONCHA PLEASII	BLEEDINGTOOTH	G3G4	OZ	Invertebrate-Mussel

ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Mark Twain National Forest	USDA Forest Service
Coldwater Access	Missouri Department of Conservation
Millstream Gardens Conservation Area	Missouri Department of Conservation
Roselle Access	Missouri Department of Conservation
Syenite Access	Missouri Department of Conservation
Sam A. Baker State Park	Missouri Department of Natural Resources
Wappapello Lake	US Army Corp of Engineers

42 Strawberry River AR 219 miles

WHITE RIVER AQUATIC SUBSECTION

Tributary of the Black River located in the Salem Plateau. The watershed is 789 square miles in size, and is approximately 50% forested. There are 89 native fish species found in the Strawberry River.

Threat Rank - High

Principal stresses - sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Creek/Headwater Stream

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CRYTOBRANCHUS ALLEGANIENSIS BISHOPI	OZARK HELLBENDER	G4T3	OZ	Amphibian
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA EUZONUM EUZONUM	ARKANSAS SADDLED DARTER	G3G4	OZ	Fish
ETHEOSTOMA FRAGI	STRAWBERRY RIVER DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTROPIS OZARCANUS	OZARK SHINER	G3	OZ	Fish
NOTURUS ALBATER	OZARK MADTOM	G4?	OZ	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
PIMEPHALES TENELLUS PARVICEPS	EASTERN SLIM MINNOW	G5T2T3	MOD	Fish
CAMBARUS HUBBSI	HUBB'S CRAYFISH	G5	OZ	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
CYPROGENIA ABERTI	WESTERN FANSHELL	G2	OZ	Invertebrate-Mussel
FUSCONAIA OZARKENSIS	OZARK PIGTOE	G3	MOD	Invertebrate-Mussel
LAMPSILIS REEVIANA BREVICULA	BROKEN RAYS	G3T2	OZ	Invertebrate-Mussel
LEPTODEA LEPTODON	SCALESHELL	G1	MOD	Invertebrate-Mussel
VENUSTACONCHA PLEASII	BLEEDINGTOOTH	G3G4	OZ	Invertebrate-Mussel
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Strawberry River	The Nature Conservancy

43 Tavern Creek MO 44 miles

MISSOURI RIVER AQUATIC SUBSECTION

Small tributary creek system of the Osage River with gravel substrate hosting 16 endemic or modal species, including the imperiled Niangua Darter. Threats to the river system include destruction of native riparian vegetation, nutrients and sedimentation from inappropriate cattle grazing in riparian areas, and conversion of forested uplands to cool-season pasture.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA NIANGUAE	NIANGUA DARTER	G2	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA TETRAZONUM	MISSOURI SADDLED DARTER	G5?	OZ	Fish
ETHEOSTOMA ZONALE	BANDED DARTER	G5	MOD	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Boeckman Bridge Access	Missouri Department of Conservation
Brays Access	Missouri Department of Conservation
Madden Ford Access	Missouri Department of Conservation
Wilson Camp Access	Missouri Department of Conservation

44 Current River MO 130 miles

WHITE RIVER AQUATIC SUBSECTION

Probably the most significant middle sized river in midcontinental North America; consists of a large undammed cold water river system with gravel and dolomite boulder substrate and a high base flow fed from a set of the largest springs in central North America. The lowest reaches of the river in the Ozarks become slightly warmer and more turbid, with some mussel bed development. The river hosts an impressive 35 endemic or modal species, including a fish globally restricted to this basin, the Current River Saddled Darter, as well as the imperiled Western Fanshell, and the rapidly declining Ozark Hellbender. Twenty-five of these target species have their best, most viable, populations globally at this site. A significant percentage of the watershed is in protected state and federal ownership, with the Ozark National Scenic Riverways influencing most of the riparian corridor, and another third of the watershed is in private forestry. Threats include conversion of private forest lands to pasture and rural residential development and sedimentation from development in the watershed.

Threat Rank - Medium

Community Targets

Creek/Headwater Stream

Large River

Small River

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CRYTOBRANCHUS ALLEGANIENSIS BISHOPI	OZARK HELLBENDER	G4T3	OZ	Amphibian
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
COTTUS CAROLINAE	BANDED SCULPIN	G5	MOD	Fish
COTTUS HYPSELURUS	OZARK SCULPIN	G4	OZ	Fish
CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	MOD	Fish
ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	G3G4Q	OZ	Fish
ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS)	WESTERN GRAVEL CHUB	G5T?	MOD	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA EUZONUM ERIZONUM	CURRENT RIVER SADDLED DARTER	G4T2?	OZ	Fish
ETHEOSTOMA PUNCTULATUM	STIPPLED DARTER	G4	OZ	Fish
ETHEOSTOMA UNIPORUM	CURRENT ORANGETHROAT DARTER	G4	OZ	Fish
ETHEOSTOMA ZONALE (BLACK RIVER RACE)	BLACK RIVER BANDED DARTER	G5T?	OZ	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS ZONATUS (NOTROPIS)	BLEEDING SHINER	G5?	MOD	Fish
MOXOSTOMA CARINATUM	RIVER REDHORSE	G4	MOD	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTROPIS OZARCANUS	OZARK SHINER	G3	OZ	Fish
NOTURUS ALBATER	OZARK MADTOM	G4?	OZ	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
NOTURUS FLAVATER	CHECKERED MADTOM	G3G4	OZ	Fish
PERCINA EVIDES (OZARK SUBSP.)	GILT DARTER	G4T?	OZ	Fish
CAMBARUS HUBBSI	HUBB'S CRAYFISH	G5	OZ	Invertebrate-Crayfish
ORCONECTES LUTEUS	GOLDEN CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES PUNCTIMANUS	SPOT-HANDED CRAYFISH	G4G5?	OZ	Invertebrate-Crayfish
AGAPETUS ARTESUS	ARTESIAN AGAPETUS CADDISFLY	G?	OZ	Invertebrate-Insect
HYDROPSYCHE PIATRIX	NET-SPINNING CADDISFLY	G?	OZ	Invertebrate-Insect
PADUNIELLA NEARCTICA	NEARTIC PADUNIELLAN CADDISFLY	G1?	OZ	Invertebrate-Insect
CYPROGENIA ABERTI	WESTERN FANSHELL	G2	OZ	Invertebrate-Mussel
FUSCONAIA OZARKENSIS	OZARK PIGTOE	G3	MOD	Invertebrate-Mussel
LAMPSILIS REEVIANA BREVICULA	BROKEN RAYS	G3T2	OZ	Invertebrate-Mussel
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail
PSEUDEMYS CONCINNA METTERI (PSEUDO)	MISSOURI RIVER COOTER	G5T4	OZ	Reptile

Managed Areas

Area Name	Owner
Ozark National Scenic Riverways	US National Park Service
Mark Twain National Forest	USDA Forest Service
Angeline Conservation Area	Missouri Department of Conservation
Current River Conservation Area	Missouri Department of Conservation
Rocky Creek Conservation Area	Missouri Department of Conservation
Sunklands Conservation Area	Missouri Department of Conservation
Van Buren Riverfront Park	Missouri Department of Conservation
Alton Box/Pulltite	The Nature Conservancy
Alton Box/Pulltite	The Nature Conservancy
Bat Cave	The Nature Conservancy
Chilton Creek	The Nature Conservancy

45 Indian Creek ARMO 12 miles

WHITE RIVER AQUATIC SUBSECTION

Small spring-fed creek in the upper White River basin, host to six endemic or modal species, including both Meeks and Williams Crayfish, globally restricted to this aquatic habitat in the upper White River. Threats include rural residential development and associated degradation of water quality within this small watershed south of Table Rock Lake and sedimentation and nutrient loading from incompatible cattle grazing in riparian areas.

Threat Rank - High

Principal stresses - sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ORCONECTES MEEKI	MEEK'S CRAYFISH	G4?	OZ	Invertebrate-Crayfish
ORCONECTES NEGLECTUS	RINGED CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES WILLIAMSI	WILLIAMS' CRAYFISH	G2	OZ	Invertebrate-Crayfish

Managed Areas

Area Name	Owner
Table Rock Lake	US Army Corp of Engineers

46 Bear Creek MO 11 miles

WHITE RIVER AQUATIC SUBSECTION

Small spring-fed creek in the upper White River basin north of Branson, Missouri. Includes habitat for 17 endemic or modal species, including Williams Crayfish, which is globally restricted to the upper White River. Threats include rural residential development and associated degradation of water quality, and sedimentation and nutrient loading from cattle grazing in riparian areas.

Threat Rank - High

Principal stresses
- sedimentation
- habitat disturbance
- nutrient loading

Community Targets

Creek/Headwater Stream

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMPOSTOMA OLIGOLEPIS	LARGESCALE STONEROLLER	G5	MOD	Fish
CYPRINELLA GALACTURA (NOTROPIS)	WHITETAIL SHINER	G5	MOD	Fish
ERIMYSTAX HARRYI (HYBOPSIS)	OZARK CHUB	G3G4Q	OZ	Fish
ETHEOSTOMA BLENNIOIDES NEWMANII	GREENSIDE DARTER	G5T4	MOD	Fish
ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.)	RAINBOW DARTER	G5T3?	OZ	Fish
ETHEOSTOMA FLABELLARE (WHITE RIVER FORM)	WHITE RIVER FANTAIL DARTER	G5	OZ	Fish
ETHEOSTOMA JULIAE	YOKE DARTER	G4?	OZ	Fish
FUNDULUS CATENATUS	NORTHERN STUDFISH	G5	MOD	Fish
LUXILUS PILSBRYI (NOTROPIS)	DUSKYSTRIPE SHINER	G5?	OZ	Fish
NOTROPIS GREENEI	WEDGESPOT SHINER	G5?	MOD	Fish
NOTROPIS NUBILUS	OZARK MINNOW	G5?	MOD	Fish
NOTURUS EXILIS	SLENDER MADTOM	G5	MOD	Fish
CAMBARUS HUBBSI	HUBB'S CRAYFISH	G5	OZ	Invertebrate-Crayfish
ORCONECTES NEGLECTUS	RINGED CRAYFISH	G5	MOD	Invertebrate-Crayfish
ORCONECTES OZARKAE	OZARK CRAYFISH	G4	OZ	Invertebrate-Crayfish
ORCONECTES WILLIAMSI	WILLIAMS' CRAYFISH	G2	OZ	Invertebrate-Crayfish
ELIMIA POTOSIENSIS	PYRAMID ELIMIA	G5	OZ	Invertebrate-Snail

Appendix 4B. List of Targets by *Terrestrial Landscape Area* with Descriptions

130 Boston Mountains AR 1,330,000 acres

SPRINGFIELD PLATEAU, LOWER BOSTON MOUNTAINS, UPPER BOSTON MOUNTAINS

Low mountainous landscape constituting a distinct phase of the Ozarks ecoregion. This region is the spine of the Boston mountain section of the Ozarks, and is characterized by high local relief, steep side slopes, and broad upland ridges and summits. Much of the landscape is within the Ozark National Forest and the upper portion of the Buffalo National River. Uplands have weathered, well-drained acidic soils and support pine oak and oak woodland. Limited areas in the uplands have dolomite and shale, with post oak woodlands. Significant upland waterways are present including the headwaters of the Mulberry River. Uplands in managed areas are threatened by pine conversion, and on private lands by clearing for Fescue pasture. Altered fire regimes are a critical threat.

Threat Rank - Medium

Community Target

Acid deciduous woodland complex
Acid seep
Alder thicket
Ashe juniper woodland
Cane break
Carbonate rock wash
Carbonate talus
Dry carbonate cliff
Dry siliceous cliff
High-base deciduous woodland complex
Limestone glade complex
Lotic shoal
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Mesophytic deciduous woodland complex - beech
Moist carbonate cliff
Moist siliceous cliff
Overcup pond forest
Ozark gravel bar
Ozark riparian woodland complex
Ozark slough
Pine-oak woodland complex
Sandstone talus
Shortleaf pinery complex
Shrub swamp
Siliceous rock wash
Southern flatwoods

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBYSTOMA ANNULATUM	RINGED SALAMANDER	G4	OZ	Amphibian
BUFO AMERICANUS CHARLESMITHI	DWARF AMERICAN TOAD	G5T5	OZ	Amphibian
CAMBARUS CAUSEYI	BOSTON MOUNTAINS CRAYFISH	G1	OZ	Invertebrate-Crayfish
AMBLYSCIRTES LINDA	LINDA'S ROADSIDE SKIPPER	G2G3	MOD	Invertebrate-Insect
SCAPHINOTUS INFLECTUS	A GROUND BEETLE	G?	OZ	Invertebrate-Insect
CASTANEA PUMILA VAR OZARKENSIS	OZARK CHINQUAPIN	G5T3	MOD	Plant-Vascular
DELPHINIUM NEWTONIANUM	MOORE'S LARKSPUR	G3	OZ	Plant-Vascular
DODECATHEON FRENCHII	FRENCH'S SHOOTING STAR	G3	MOD	Plant-Vascular
ERIOCAULON KOERNICKIANUM	SMALL-HEADED PIPEWORT	G2	DJ	Plant-Vascular
HEUCHERA VILLOSA VAR ARKANSANA	ARKANSAS ALUMROOT	G5T3Q	OZ	Plant-Vascular
NEVIUSIA ALABAMENSIS	SNOW WREATH	G2	R	Plant-Vascular
SILENE OVATA	OVATE-LEAF CATCHFLY	G2G3	DJ	Plant-Vascular
TRADESCANTIA OZARKANA	OZARK SPIDERWORT	G3	OZ	Plant-Vascular
TRILLIUM PUSILLUM VAR OZARKANUM	OZARK WAKE ROBIN	G3T3	MOD	Plant-Vascular
VALERIANELLA NUTTALLII	NUTTALL CORN-SALAD	G1G2	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Cherokee Wildlife Management Area	Arkansas Game and Fish Commission	550
Gene Rush/ Buffalo River Wildlife Management Area	Arkansas Game and Fish Commission	16500
Gulf Mountain Wildlife Management Area	Arkansas Game and Fish Commission	10700
Unnamed Tract	Arkansas Natural Heritage Commission	110
Sweeden Creek	The Nature Conservancy	130
Buffalo National River	US National Park Service	9200

Ponca Wilderness	US National Park Service	10900
Upper Buffalo Wilderness	US National Park Service	14400
East Fork Wilderness	USDA Forest Service	10600
Hurricane Creek Wilderness	USDA Forest Service	15300
Ozark National Forest	USDA Forest Service	763000
Richland Creek Wilderness	USDA Forest Service	11900

131 Sylamore AR 372,000 acres

SPRINGFIELD PLATEAU, WHITE RIVER HILLS

Located within the drainage of the Buffalo National River, this landscape consists of dissected uplands in both dolomite and sandstone. Community diversity is high, with a complex of dry and moist, acidic and high-base woodlands and embedded small patch communities. Although precise data are lacking, the region may also harbor land snails of global significance.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex
Alder thicket
Ashe juniper woodland
Cane break
Carbonate rock wash
Carbonate talus
Chert glade complex
Dolomite glade complex
Dry carbonate cliff
High-base deciduous woodland complex
Limestone glade complex
Lotic shoal
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Moist carbonate cliff
Overcup pond forest
Ozark gravel bar
Ozark riparian woodland complex
Pine-oak woodland complex
Sandstone glade complex
Shortleaf pinery complex
Siliceous rock wash
Streamside fen

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBYSTOMA ANNULATUM	RINGED SALAMANDER	G4	OZ	Amphibian
BUFO AMERICANUS CHARLESMITHI	DWARF AMERICAN TOAD	G5T5	OZ	Amphibian
AMBLYSCIRTES LINDA	LINDA'S ROADSIDE SKIPPER	G2G3	MOD	Invertebrate-Insect
CASTANEA PUMILA VAR OZARKENSIS	OZARK CHINQUAPIN	G5T3	MOD	Plant-Vascular
DELPHINIUM NEWTONIANUM	MOORE'S LARKSPUR	G3	OZ	Plant-Vascular
DELPHINIUM TRELEASEI	TRELEASE'S LARKSPUR	G3	OZ	Plant-Vascular
DRABA APRICA	WHITLOW GRASS	G3	MOD	Plant-Vascular
ECHINACEA PARADOXA	BUSH'S YELLOW CONEFLOWER	G2	OZ	Plant-Vascular
PENSTEMON COBAEA PURPUREUS	PURPLE BEARD-TONGUE	G4T	OZ	Plant-Vascular
SILENE OVATA	OVATE-LEAF CATCHFLY	G2G3	DJ	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Loafers Glory Wildlife Management Area	Arkansas Game and Fish Commission	2600
Devils Knob-Devils Backbone Natural Area	Arkansas Natural Heritage Commission	500
Hell Creek Natural Area	Arkansas Natural Heritage Commission	220
Old Mill State Park	Arkansas State Park	620
Buffalo National River	US National Park Service	50500
Lower Buffalo Wilderness	US National Park Service	21000
Ozark National Forest	USDA Forest Service	130500

132 Cookson Hills OK 136,000 acres

SPRINGFIELD PLATEAU

Western Ozark landscape of gently rolling to highly dissected uplands characterized by cherty soils with occasional limestone exposures. Extensive sandstone exposures and sandstone-derived soils occur in this site along the Illinois River. Cookson Hills contains some of the best expressions of acidic deciduous woodlands and pine-oak woodlands in the extreme western Ozarks, as well as some high quality stream and small canyon systems and their associated small patch wetland features. Because the site is almost entirely privately owned, habitat destruction is a major concern.

Threat Rank - Medium

Primary Stresses - habitat destruction
- altered fire regime

Community Target

Acid deciduous woodland complex
Acid seep
Acid upland prairie
Carbonate rock wash
Dry siliceous cliff
High-base deciduous woodland complex
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Moist siliceous cliff
Ozark gravel bar
Ozark slough
Pine-oak woodland complex
Sandstone glade complex
Shortleaf pinery complex
Siliceous rock wash

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBYSTOMA ANNULATUM	RINGED SALAMANDER	G4	OZ	Amphibian
BUFO AMERICANUS CHARLESMITHI	DWARF AMERICAN TOAD	G5T5	OZ	Amphibian
EURYCEA LONGICAUDA MELANOPLEURA	DARK-SIDED SALAMANDER	G5T4	OZ	Amphibian
EURYCEA MULTIPLICATA GRISEOGASTER	GRAYBELLY SALAMANDER	G4T4	OZ	Amphibian
EURYCEA TYNERENSIS	OKLAHOMA SALAMANDER	G3	OZ	Amphibian
PLETHODON ALBAGULA	WESTERN SLIMY SALAMANDER	G4	OZ	Amphibian
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
MNIOTILTA VARIA	BLACK-AND-WHITE WARBLER	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
SPEYERIA DIANA	DIANA	G3	MOD	Insect
CAECIDOTEA STEEVESI	ISOPOD	G2G4	OZ	Isopod
CASTANEA PUMILA VAR OZARKENSIS	OZARK CHINQUAPIN	G5T3	MOD	Plant-Vascular
AGKISTRODON CONTORTRIX PHAEOGASTER	OSAGE COPPERHEAD	G5T5	OZ	Reptile
CARPHOPHIS VERMIS	WESTERN WORM SNAKE	G5T5	OZ	Reptile
LAMPROPELTIS TRIANGULUM SYSPILA	RED MILK SNAKE	G5T5	OZ	Reptile

Managed Areas

Area Name	Owner	Size
School Lands	Oklahoma School Lands Commission	200
Nickle Preserve	The Nature Conservancy	15,200

133 St. Francois Mountains MO 56,500 acres

ST. FRANCOIS KNOBS AND BASINS

Rugged knobs landscape developing in ancient igneous uplift, and characterized by uplands with thin rocky soils and extensive rhyolitic exposures. Igneous glades, savannas, woodlands, and talus are common features, with both oak and pine oak woodland. Some areas on lower slopes and in bottoms are influenced by underlying or exposed dolomite, and provide habitat for glades, fens, and associated features.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex
Acid seep
Alder thicket
Carbonate rock wash
Dolomite glade complex
Dry carbonate cliff
Dry siliceous cliff
Forested fen
High-base deciduous woodland complex
Igneous glade complex
Igneous talus
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Moist carbonate cliff
Moist siliceous cliff
Ozark fen complex
Ozark gravel bar
Ozark riparian woodland complex
Ozark slough
Pine-oak woodland complex
Shortleaf pinery complex
Siliceous rock wash
Streamside fen
Upland flatwood

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
ASCLEPIAS MEADII	MEAD'S MILKWEED	G2	R	Plant-Vascular
DRABA APRICA	WHITLOW GRASS	G3	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Ketcherside Mountain Conservation Area	Missouri Department of Conservation	5152
Lower Taum Sauk Lake	Missouri Department of Conservation	1351
Johnson's Shut-Ins State Park	Missouri Department of Natural Resources	8194
Taum Sauk Mountain State Park	Missouri Department of Natural Resources	7165
Mark Twain National Forest	USDA Forest Service	18907

134 Current River LCA MO 1,550,000 acres

CENTRAL PLATEAU, CURRENT RIVER HILLS, BLACK RIVER OZARK BORDER

Deeply dissected upland plains, hills, and river breaks Current, Jacks Fork, and Eleven Point rivers, as well as the head of the Little Black River. Uplands are characterized by weathered acidic soils with pine-oak and oak woodland. The site has an extremely high level of habitat diversity, with multiple embedded examples of large and small patch communities within an unusually high intercalated suite of matrix natural communities. One of the largest intact native landscapes in the Ozarks ecoregion.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex
Acid seep
Alder thicket
Cane break
Carbonate rock wash
Carbonate talus
Carbonate upland prairie
Dolomite glade complex
Dry carbonate cliff
Dry siliceous cliff
Forested fen
High-base deciduous woodland complex
Hydric flatwoods
Igneous glade complex
Igneous talus
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Moist carbonate cliff

Moist siliceous cliff
Ozark fen complex
Ozark gravel bar
Ozark riparian woodland complex
Ozark slough
Pine-oak woodland complex
Pond swamp
Prairie fen
Shortleaf pinery complex
Siliceous rock wash
Sinkhole pond marsh
Sinkhole pond shrub swamp
Spring system
Streamside fen
Upland flatwoods

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBYSTOMA ANNULATUM	RINGED SALAMANDER	G4	OZ	Amphibian
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
MNIOTILTA VARIA	BLACK-AND-WHITE WARBLER	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
SOMATOCHLORA HINEANA	HINE'S EMERALD DRAGONFLY	G2G3	R	Invertebrate-Insect
XENOCHALEPUS POTOMACA	LEAF BEETLE	G?	OZ	Invertebrate-Insect
NEOTOMA FLORIDANA OSAGENISIS	OSAGE WOODRAT	G5T3?	OZ	Mammal
PYRENULA MICHENERI	A LICHEN	--	MOD?	Plant-lichen
CASTANEA PUMILA VAR OZARKENSIS	OZARK CHINQUAPIN	G5T3	MOD	Plant-Vascular
DESMODIUM HUMIFUSUM	TRAILING TICK-TREFOIL	G1G2Q	DJ	Plant-Vascular
DRABA APRICA	WHITLOW GRASS	G3	MOD	Plant-Vascular
ERIOGONUM LONGIFOLIUM VAR LONGIFOLIUM	UMBRELLA PLANT	G4T3T4	MOD	Plant-Vascular
NEMASTYLIS NUTTALLII	CELESTIAL LILY	G4	MOD	Plant-Vascular
PHACELIA GILIOIDES	BRAND PHACELIA	G5	OZ	Plant-Vascular
SCUTELLARIA BUSHII	BUSH'S SKULLCAP	G3	OZ	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Angeline Conservation Area	Missouri Department of Conservation	38860
Barn Hollow Natural Area	Missouri Department of Conservation	250
Bee Rock Sink Natural Area	Missouri Department of Conservation	10
Buttin Rock Access	Missouri Department of Conservation	10
Carter Creek Conservation Area	Missouri Department of Conservation	443
Cedar Grove Conservation Area	Missouri Department of Conservation	1167
Centerville Access	Missouri Department of Conservation	42
Clearwater Conservation Area	Missouri Department of Conservation	2554
Current River Conservation Area	Missouri Department of Conservation	31252
Gist Ranch Conservation Area	Missouri Department of Conservation	11093
Hunter Towersite	Missouri Department of Conservation	78
Little Black Conservation Area	Missouri Department of Conservation	2312
Logan Creek Conservation Area	Missouri Department of Conservation	11862
Midvale Conservation Area	Missouri Department of Conservation	85
Miller Conservation Area	Missouri Department of Conservation	61
Peck Ranch Conservation Area	Missouri Department of Conservation	22907
Rocky Creek Conservation Area	Missouri Department of Conservation	37584
South Prong Access	Missouri Department of Conservation	2

Summersville Towersite	Missouri Department of Conservation	31
Sunklands Conservation Area	Missouri Department of Conservation	37863
Triple Sink Natural Area	Missouri Department of Conservation	12
Montauk State Park	Missouri Department of Natural Resources	1332
Alton Box/Pulltite	The Nature Conservancy	166
Bat Cave	The Nature Conservancy	10
Chilton Creek	The Nature Conservancy	563
Grasshopper Hollow	The Nature Conservancy	226
Shut-In Mountain Fens	The Nature Conservancy	518
Thorny Mountain	The Nature Conservancy	950
Ozark National Scenic Riverways	US National Park Service	82198
Mark Twain National Forest	USDA Forest Service	478257

135 Western Ozarks Savanna MO 127,000 acres

CENTRAL PLATEAU, OSAGE RIVER HILLS

Moderately to deeply dissected landscape characterized by both broad undulating uplands and deeply dissected, narrow ridges and valleys associated with the Niangua River**.** Uplands have cherty clay soils that support oak savanna and oak woodland with a prominent prairie-associated ground flora. Dolomite glades and cliffs are frequent and sometimes extensive, especially along the mainstem of the Niangua River. Fens, rock wash and gravel bar communities occur along the drainages.

Threat Rank – High

Primary stresses - altered fire regime
- habitat destruction

Community Targets

Acid deciduous woodland complex
Carbonate rock wash
Carbonate talus
Dolomite glade complex
Dry carbonate cliff
High-base deciduous woodland complex
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Moist carbonate cliff
Ozark fen complex
Ozark gravel bar
Ozark riparian woodland complex
Ozark slough
Siliceous rock wash
Streamside fen

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
MNIOTILTA VARIA	BLACK-AND-WHITE WARBLER	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
AUREOLARIA GRANDIFLORA CINEREA	BIG-FLOWERED GERARDIA	G4G5TU	MOD	Plant-Vascular
ECHINACEA PARADOXA	BUSH'S YELLOW CONEFLOWER	G2	OZ	Plant-Vascular
NEMASTYLIS NUTTALLII	CELESTIAL LILY	G4	MOD	Plant-Vascular
PHACELIA GILIOIDES	BRAND PHACELIA	G5	OZ	Plant-Vascular
SOLIDAGO GATTINGERI	GATTINGER'S GOLDENROD	G3?Q	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Barclay Conservation Area	Missouri Department of Conservation	392
Bennett Spring Access	Missouri Department of Conservation	169
Berry Bluff Conservation Area	Missouri Department of Conservation	167
Coffin Cave Conservation Area	Missouri Department of Conservation	73
Lead Mine Conservation Area	Missouri Department of Conservation	6933
Moon Valley Access	Missouri Department of Conservation	3
Prosperine Access	Missouri Department of Conservation	7
Bennett Spring State Park	Missouri Department of Natural Resources	2957
Ha Ha Tonka State Park	Missouri Department of Natural Resources	3030
Bennett Spring Savanna	The Nature Conservancy	985

136 LaRue/Trail of Tears ILMO 301,000 acres

OUTER OZARK BORDER, ILLINOIS OZARKS, MISSISSIPPI RIVER ALLUVIAL

A complex landscape, encompassing the river blufflands on both side of the Mississippi River, the intervening alluvial plain, and rolling Ozark uplands developed in sandstone. Habitat diversity is high, with both limestone and sandstone exposures and loess substrates supporting glades, prairies, diverse wetlands, and both oak and pine oak woodlands. There are also significant occurrences of mesophytic forest systems, including a beech component. Much of the Illinois portion of the site lies within the Shawnee National Forest.

Threat Rank – High

Primary stresses - altered fire regime
- habitat destruction

Community Targets

Acid deciduous woodland complex
Carbonate rock wash
Carbonate talus
Dry carbonate cliff
Dry siliceous cliff
Eastern loess hill prairie
Floodplain marsh
Freshwater marsh
High-base deciduous woodland complex
Hydric flatwoods
Large river mud flat
Large river riparian woodland complex
Large river sand flat
Large river slough
Limestone glade complex
Mesic sand prairie
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Mesophytic deciduous woodland complex - bee
Moist carbonate cliff
Moist siliceous cliff
Pine-oak woodland complex
Riverine sand/mud bar
Rock chestnut oak woodland
Sandstone glade complex
Sandstone talus
Shale glade, acid subtype
Shortleaf pinery complex
Shrub swamp
Sinkhole pond marsh
Spring system
Swamp

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
STERNA ANTILLARUM ATHALASSOS	INTERIOR LEAST TERN	G4T2Q	R	Bird
NEOTOMA FLORIDANA OSAGENISIS	OSAGE WOODRAT	G5T3?	OZ	Mammal

Managed Areas

Area Name	Owner	Size
Union County Conservation Area	Illinois State Conservation Area	6513
Trail of Tears State Forest	Illinois State Forest	5239
Berryville Shale Glade	Illinois State Nature Preserve	34
Brown Barrens	Illinois State Nature Preserve	34
Larue Swamp	Illinois State Nature Preserve	136
McClure Shale Glade	Illinois State Nature Preserve	52
Ozark Hills	Illinois State Nature Preserve	215
Apple Creek Conservation Area	Missouri Department of Conservation	2119
Juden Creek Conservation Area	Missouri Department of Conservation	8
Tower Rock Conservation Area	Missouri Department of Conservation	1
Tower Rock Natural Area	Missouri Department of Conservation	28
Trail of Tears State Park	Missouri Department of Natural Resources	3135
Shawnee National Forest	USDA Forest Service	100000

137 Central Missouri Hills MO 177,000 acres

OUTER OZARK BORDER

Deeply dissected Missouri River hills landscape, with frequent high gradient upland drainages feeding directly into the river. Limestone and dolomite exposures are frequent, and the uplands have a prominent loess cap and deeply weathered soils. Vegetation is a combination of oak woodlands and more mesophytic woodland and forest, with dolomite bluffs along the Missouri river, and some bottomland timber along tributary streams.

Threat Rank – High

Primary stresses - altered fire regime
- habitat destruction

Community Targets

Acid deciduous woodland complex
Acid seep
Carbonate talus
Dry carbonate cliff
Dry siliceous cliff
High-base deciduous woodland complex
Large river riparian woodland complex
Limestone glade complex
Mesic prairie
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Mesophytic deciduous woodland complex - beech
Moist carbonate cliff
Moist siliceous cliff
Sandstone glade complex
Sandstone talus
Siliceous rock wash

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBYSTOMA ANNULATUM	RINGED SALAMANDER	G4	OZ	Amphibian
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
TRILLIUM VIRIDE	GREEN TRILLIUM	G4G5	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Daniel Boone Conservation Area	Missouri Department of Conservation	3615
Danville Conservation Area	Missouri Department of Conservation	1254
Danville Conservation Area – Baldwin Annex	Missouri Department of Conservation	690
Danville Conservation Area – Thornhill & Schulze Annex	Missouri Department of Conservation	699
Little Lost Creek Conservation Area	Missouri Department of Conservation	2906
Loutre Lick Access	Missouri Department of Conservation	146

Reifsnider (Frank) State Forest	Missouri Department of Conservation	1375
Warrenton Towersite	Missouri Department of Conservation	12
Graham Cave State Park	Missouri Department of Natural Resources	361

138 Fults Hill Prairie Complex IL 21,000 acres

ILLINOIS OZARKS

Narrow, elongate landscape associated with dissected upland bluffs along the east side of the Mississippi River floodplain. These west-facing bluffs and slopes support extensive loess hill prairie communities, which occur in steep, dry, open areas. In addition to the prairies, a diverse mosaic of natural communities occur at the site including high-base xeric woodland, savanna, limestone glade, and limestone cliff communities, as well as sink hole ponds. This site contains a large complex of the highest quality, essentially undisturbed loess hill prairies in existence along the Mississippi River in Illinois.

Threat Rank – High

Primary stresses - altered fire regime
- habitat destruction

Community Targets

Dry carbonate cliff
Eastern loess hill prairie
Limestone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
RUDBECKIA MISSOURIENSIS	MISSOURI ORANGE CONEFLOWER	G4G5	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Fults Hill Prairie	Illinois State Nature Preserve	425

139 Pickle Creek Complex MO 27,900 acres

INNER OZARK BORDER

Highly dissected, moderate relief landscape characterized by exposures of LaMotte sandstone, with numerous acid seeps and small patch sandstone-derived communities embedded in an upland matrix of acidic oak, pine, and pine oak woodland. Local areas of granite are exposed within the site. The high levels of habitat diversity support a number of restricted, disjunct, and edge-of-range species.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex
Acid seep
Alder thicket
Dolomite glade complex
Dry siliceous cliff
High-base deciduous woodland complex
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Moist siliceous cliff
Ozark riparian woodland complex
Pine-oak woodland complex
Sandstone glade complex
Sandstone talus
Shortleaf pinery complex
Siliceous rock wash

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
DODECATHEON FRENCHII	FRENCH'S SHOOTING STAR	G3	MOD	Plant-Vascular
DRABA APRICA	WHITLOW GRASS	G3	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Hickory Canyons	Missouri Department of Conservation	920
Pickle Springs	Missouri Department of Conservation	260
Hawn State Park	Missouri Department of Natural Resources	4,500

140 Lamar LCA MO 172,000 acres

SPRINGFIELD PLAIN

Rolling uplands on Pennsylvanian sandstone and shales, characterized by sterile, acidic, excessively drained soils and formerly dominated by extensive tallgrass prairie, interspersed with oak savanna and oak woodland. Smaller areas of mesic prairie, and some locally extensive areas of hardpan prairie also occurred at the site. This area is the upper headwaters of the Spring River, which itself supports a diversity of globally significant species.

Threat Rank – High

Primary stresses - altered fire regimes
- habitat destruction

Community Targets

Acid upland prairie
Carbonate upland prairie
Hardpan prairie
Mesic prairie

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
ASCLEPIAS MEADII	MEAD'S MILKWEED	G2	R	Plant-Vascular
CALLIRHOE DIGITATA	FRINGED POPPY MALLOW	G4	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Horse Creek Prairie Conservation Area	Missouri Department of Conservation	76
Indigo Prairie Conservation Area	Missouri Department of Conservation	40
Niawathe Prairie Conservation Area	Missouri Department of Conservation	158
Providence Prairie Conservation Area	Missouri Department of Conservation	190
Sloan (Dr. O. E. & Eloise) Conservation Area	Missouri Department of Conservation	313
Niawathe Prairie	The Nature Conservancy	167
Shelton Cook Meadow	The Nature Conservancy	270

141 Roaring River ARMO 59,500 acres

WHITE RIVER HILLS

Deeply dissected landscape with high substrate diversity, including dolomite, limestone, sandstone, and chert. A diversity of woodland habitats, ranging from pine-oak and oak woodlands to mesophytic mixes hardwoods and Ashe juniper stands, occurs through the site. Embedded in these woodlands is a diverse suite of small and large patch communities, including extensive dolomite glades and bluffs, and small amounts of limestone and sandstone glades and bluffs, as well as diverse mesophytic cove forests with species such as Yellowwood.

Threat Rank – High

Primary stresses - altered fire regimes
- habitat destruction

Community Targets

Acid deciduous woodland complex

Alder thicket
Ashe juniper woodland
Carbonate rock wash
Dolomite glade complex
High-base deciduous woodland complex
Limestone glade complex
Mesophytic deciduous woodland complex
Ozark gravel bar
Spring system

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBYSTOMA ANNULATUM	RINGED SALAMANDER	G4	OZ	Amphibian
EURYCEA MULTIPLICATA GRISEOGASTER	GRAYBELLY SALAMANDER	G4T4	OZ	Amphibian
EURYCEA TYNERENSIS	OKLAHOMA SALAMANDER	G3	OZ	Amphibian
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
MNIOTILTA VARIA	BLACK-AND-WHITE WARBLER	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
SPEYERIA DIANA	DIANA	G3	MOD	Invertebrate-Insect
ANDRACHNE PHYLLANTHOIDES	MISSOURI BUCK-BRUSH	G4	MOD	Plant-Vascular
AUREOLARIA GRANDIFLORA CINEREA	BIG-FLOWERED GERARDIA	G4G5TU	MOD	Plant-Vascular
CALLIRHOE BUSHII	BUSH'S POPPY MALLOW	G3	MOD	Plant-Vascular
CALLIRHOE DIGITATA	FRINGED POPPY MALLOW	G4	MOD	Plant-Vascular
CASTANEA PUMILA VAR OZARKENSIS	OZARK CHINQUAPIN	G5T3	MOD	Plant-Vascular
CLEMATIS VERSICOLOR	MANY-COLOR VIRGIN'S BOWER	G4?	MOD	Plant-Vascular
DELPHINIUM TRELEASEI	TRELEASE'S LARKSPUR	G3	OZ	Plant-Vascular
ECHINACEA PARADOXA	BUSH'S YELLOW CONEFLOWER	G2	OZ	Plant-Vascular
MATELEA BALDWYNIANA	BALDWIN'S MILKVINE	G3	MOD	Plant-Vascular
PENSTEMON ARKANSANUS	ARKANSAS BEARDTONGUE	G5	MOD	Plant-Vascular
SOLIDAGO GATTINGERI	GATTINGER'S GOLDENROD	G3?Q	MOD	Plant-Vascular
TRADESCANTIA OZARKANA	OZARK SPIDERWORT	G3	OZ	Plant-Vascular
VALERIANELLA OZARKANA	OZARK CORN SALAD	G3	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Roaring River Conservation Area	Missouri Department of Conservation	433
Roaring River State Park	Missouri Department of Natural Resources	3486
Mark Twain National Forest	USDA Forest Service	34133

142 Drury-Mincy ARMO 16,700 acres

WHITE RIVER HILLS

Dissected hills associated with the White River basin, characterized by uplands with cherty soils and diverse oak woodland/oak savanna complexes, with interspersed small dolomite glades. One third of the site is within the Drury-Mincy Conservation Area.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex
Carbonate rock wash
Dolomite glade complex
Sinkhole pond marsh

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
MNIOTILTA VARIA	BLACK-AND-WHITE WARBLER	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
ANDRACHNE PHYLLANTHOIDES	MISSOURI BUCK-BRUSH	G4	MOD	Plant-Vascular
AUREOLARIA GRANDIFLORA CINEREA	BIG-FLOWERED GERARDIA	G4G5TU	MOD	Plant-Vascular
DELPHINIUM TRELEASEI	TRELEASE'S LARKSPUR	G3	OZ	Plant-Vascular
MATELEA BALDWYNIANA	BALDWIN'S MILKVINE	G3	MOD	Plant-Vascular
PENSTEMON ARKANSANUS	ARKANSAS BEARDTONGUE	G5	MOD	Plant-Vascular
PENSTEMON COBAEA PURPUREUS	PURPLE BEARD-TONGUE	G4T	OZ	Plant-Vascular
TRADESCANTIA OZARKANA	OZARK SPIDERWORT	G3	OZ	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Bull Shoals Lake	US Army Corp of Engineers	1,000
Drury-Mincy Conservation Area	Missouri Department of Conservation	6,300

143 Ava Glades MO 135,000 acres

WHITE RIVER HILLS

A moderately dissected upland knobs landscape primarily within the Ava District of the Mark Twain National Forest. This site includes the largest dolomite glade complex in the New World, and perhaps the only area in North America where dolomite glades are the dominant matrix community over large areas. A suite of globally restricted plant species are associated with the glades. The glade systems are intercalated with a diverse suites of woodland communities.

Threat Rank – High

Principal stresses - altered fire regimes
- habitat destruction

Community Targets

Carbonate rock wash

Dolomite glade complex

High-base deciduous woodland complex

Ozark riparian woodland complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
MNIOTILTA VARIA	BLACK-AND-WHITE WARBLER	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
ANDRACHNE PHYLLANTHOIDES	MISSOURI BUCK-BRUSH	G4	MOD	Plant-Vascular
AUREOLARIA GRANDIFLORA CINEREA	BIG-FLOWERED GERARDIA	G4G5TU	MOD	Plant-Vascular
CLEMATIS VERSICOLOR	MANY-COLOR VIRGIN'S BOWER	G4?	MOD	Plant-Vascular
DELPHINIUM TRELEASEI	TRELEASE'S LARKSPUR	G3	OZ	Plant-Vascular
MATELEA BALDWYNIANA	BALDWIN'S MILKVINE	G3	MOD	Plant-Vascular

NEMASTYLIS NUTTALLII	CELESTIAL LILY	G4	MOD	Plant-Vascular
PENSTEMON ARKANSANUS	ARKANSAS BEARDTONGUE	G5	MOD	Plant-Vascular
PENSTEMON COBAEA PURPUREUS	PURPLE BEARD-TONGUE	G4T	OZ	Plant-Vascular
SOLIDAGO GATTINGERI	GATTINGER'S GOLDENROD	G3?Q	MOD	Plant-Vascular
TRADESCANTIA OZARKANA	OZARK SPIDERWORT	G3	OZ	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Mark Twain National Forest	USDA Forest Service	88,500

144 Caney Hills MO 14,900 acres

WHITE RIVER HILLS

Deeply dissected dolomite knobs landscape embedded in a woodland matrix. Extensive large patch dolomite glades, differing somewhat from the Ava Glades structurally and compositionally, are a principle feature. The glades are dissected by frequent wooded ravines, some with permanent springs. A large portion of the site lies within Caney Mountain Conservation Area.

Threat Rank - Low

Community Targets

Acid deciduous woodland complex
Carbonate rock wash
Dolomite glade complex
High-base deciduous woodland complex
Pine-oak woodland complex
Spring system

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
AMBLYTROPIDIA MYSTECA	GLADE GRASSHOPPER	G?	OZ	Invertebrate-Insect
PARDALOPHORA SAUSSUREI	GLADE GRASSHOPPER	G?	OZ	Invertebrate-Insect
ANDRACHNE PHYLLANTHOIDES	MISSOURI BUCK-BRUSH	G4	MOD	Plant-Vascular
DELPHINIUM TRELEASEI	TRELEASE'S LARKSPUR	G3	OZ	Plant-Vascular
ECHINACEA PARADOXA	BUSH'S YELLOW CONEFLOWER	G2	OZ	Plant-Vascular
NEMASTYLIS NUTTALLII	CELESTIAL LILY	G4	MOD	Plant-Vascular
PENSTEMON ARKANSANUS	ARKANSAS BEARDTONGUE	G5	MOD	Plant-Vascular
PENSTEMON COBAEA PURPUREUS	PURPLE BEARD-TONGUE	G4T	OZ	Plant-Vascular
TRADESCANTIA OZARKANA	OZARK SPIDERWORT	G3	OZ	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Caney Mountain	Missouri Department of Conservation	7,970

145 North Fork Hills MO 150,000 acres

WHITE RIVER HILLS

Steeply dissected hill and valley landscape of the North Fork White River, with abundant cliffs and bedrock exposures of both siliceous and carbonate substrates.. Valleys are characterized by small fens and permanent springs, with matrix woodlands largely on weathered, well-drained acidic soils.

Threat Rank – High

Principal stresses - altered fire regimes
- habitat destruction

Community Targets

Acid deciduous woodland complex
Acid seep
Ashe juniper woodland
Cane break
Carbonate rock wash
Carbonate talus
Dolomite glade complex
Dry carbonate cliff
Dry siliceous cliff
Freshwater marsh
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Moist carbonate cliff
Moist siliceous cliff
Ozark fen complex
Ozark gravel bar
Ozark riparian woodland complex
Ozark slough
Pine-oak woodland complex
Prairie fen
Sandstone talus
Shortleaf pinery complex
Shrub swamp
Sinkhole pond shrub swamp
Spring system
Streamside fen

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
MNIOTILTA VARIA	BLACK-AND-WHITE WARBLER	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
AUREOLARIA GRANDIFLORA CINEREA	BIG-FLOWERED GERARDIA	G4G5TU	MOD	Plant-Vascular
CLEMATIS VERSICOLOR	MANY-COLOR VIRGIN'S BOWER	G4?	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Hebron Access	Missouri Department of Conservation	12
Mark Twain National Forest	USDA Forest Service	95,200

148 Big Sugar Creek MO 9,640 acres

ELK RIVER HILLS

Moderately dissected hilly landscape along the Elk River, with frequent small limestone glades and bluffs, and some areas of oak pine woodland embedded in an oak woodland matrix in the uplands. Ravines and lowlands contain high base woodlands, many of which have been converted to pasture.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex
Carbonate rock wash
Carbonate talus
Dolomite glade complex
Dry carbonate cliff
High-base deciduous woodland complex
Limestone glade complex
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Moist carbonate cliff
Ozark gravel bar
Pine-oak woodland complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBYSTOMA ANNULATUM	RINGED SALAMANDER	G4	OZ	Amphibian
EURYCEA MULTIPLICATA GRISEOGASTER	GRAYBELLY SALAMANDER	G4T4	OZ	Amphibian
PLETHODON ANGUSTICLAVIUS	OZARK ZIGZAG SALAMANDER	G5T4	OZ	Amphibian
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
MNIOTILTA VARIA	BLACK-AND-WHITE WARBLER	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
AUREOLARIA GRANDIFLORA CINEREA	BIG-FLOWERED GERARDIA	G4G5TU	MOD	Plant-Vascular
CASTANEA PUMILA VAR OZARKENSIS	OZARK CHINQUAPIN	G5T3	MOD	Plant-Vascular
MATELEA BALDWYNIANA	BALDWIN'S MILKVINE	G3	MOD	Plant-Vascular
VALERIANELLA OZARKANA	OZARK CORN SALAD	G3	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Deep Ford Access	Missouri Department of Conservation	42
Huckleberry Ridge	Missouri Department of Conservation	2,065
Big Sugar Creek State Park	Missouri Department of Natural Resources	1,500

149 Truman Savanna MO 18,600 acres

OSAGE RIVER HILLS

Ridge and valley landscape, with the valleys now inundated by Truman Reservoir. Uplands characterized by matrix communities of open oak savannas with prominent prairie-associated ground layer. Dolomite glades are frequent on exposed slopes with bedrock at or near the surface, and more closed acidic deciduous woodlands occur in more deeply dissected regions.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex

Carbonate rock wash

Dolomite glade complex

High-base deciduous woodland complex

Managed Areas

Area Name	Owner	Size
Truman State Park	Missouri Department of Natural Resources	1,500
Harry S. Truman Reservoir	US Army Corp of Engineers	5,000

150 Big Piney Hills MO 47,700 acres

GASCONADE RIVER HILLS

River hills landscape along the middle reach of the Big Piney River, characterized by dissected ridges and valleys. Massive dolomite bluffs are frequent along the river, with significant sandstone exposures in the upland hollows. This area includes the most northern occurrence of pine oak matrix communities in the Ozarks. Significant features of the upland hollows are headwater streams with carbonate rock wash, streamside fen, and small spring communities.

Threat Rank – High

Principal stresses - altered fire regime

- habitat destruction

Community Targets

Acid deciduous woodland complex
Alder thicket
Dry carbonate cliff
Dry siliceous cliff
High-base deciduous woodland complex
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Moist carbonate cliff
Moist siliceous cliff
Ozark gravel bar
Ozark riparian woodland complex
Ozark slough
Pine-oak woodland complex
Shortleaf pinery complex
Siliceous rock wash
Spring system
Streamside fen

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
MNIOTILTA VARIA	BLACK-AND-WHITE WARBLER	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
AUREOLARIA GRANDIFLORA CINEREA	BIG-FLOWERED GERARDIA	G4G5TU	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Boiling Spring Access	Missouri Department of Conservation	9
Eck (Peter A.) Conservation Area	Missouri Department of Conservation	380
Ryden Cave Conservation Area	Missouri Department of Conservation	29
Mark Twain National Forest	USDA Forest Service	68699

151 Kaintuck Hollow MO 20,300 acres

GASCONADE RIVER HILLS

Rolling hills landscape with extensive broad ridgetops characterized by fragipan soils that create habitat for extensive upland flatwoods dominated by Post Oak. Side slopes have small occurrences of both dolomite and sandstone glades. Deeper valleys have more mesophytic, often high-base, deciduous woodlands.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex
Carbonate talus
Dolomite glade complex
Dry carbonate cliff
Mesophytic deciduous woodland complex
Moist carbonate cliff
Ozark fen complex
Ozark gravel bar
Ozark riparian woodland complex
Pine-oak woodland complex
Sandstone glade complex
Siliceous rock wash

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBYSTOMA ANNULATUM	RINGED SALAMANDER	G4	OZ	Amphibian
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
SOMATOCHLORA HINEANA	HINE'S EMERALD DRAGONFLY	G2G3	R	Invertebrate-Insect
CAREX FISSA VAR FISSA	A SEDGE	G3G4Q	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Mark Twain National Forest	USDA Forest Service	15,000

152 Meramec Hills MO 167,000 acres

MERAMEC RIVER HILLS

Dissected river hills along the upper Meramec River basin, including much of the drainage of Brazil Creek. Uplands are dominated by deciduous woodlands on weathered acidic soils, with more mesophytic woodlands on the slopes and in the bottoms. Numerous small wetlands features, including springs, seeps, Alder thicket, and rock wash systems, occur associated with streams. Small dolomite glades are a frequent feature, often associated with massive dolomite exposures.

Threat Rank – High

Principal stresses - altered fire regime
- habitat destruction

Community Targets

Acid deciduous woodland complex
Alder thicket
Carbonate rock wash
Carbonate talus
Dolomite glade complex
Dry carbonate cliff
High-base deciduous woodland complex
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Moist carbonate cliff
Ozark fen complex
Ozark gravel bar
Ozark riparian woodland complex
Ozark slough
Pine-oak woodland complex
Shortleaf pinery complex
Siliceous rock wash
Spring system
Streamside fen

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
VERTIGO MERAMECENSIS	BLUFF VERTIGO	G2	R	Invertebrate-Snail

Managed Areas

Area Name	Owner	Size
Blue Springs Creek Conservation Area	Missouri Department of Conservation	856
Campbell Bridge Access	Missouri Department of Conservation	8
Huzzah Conservation Area	Missouri Department of Conservation	6078
Meramec Conservation Area	Missouri Department of Conservation	4091
Onyx Cave Conservation Area	Missouri Department of Conservation	38
Pea Ridge Conservation Area	Missouri Department of Conservation	6452
Sand Ford Access	Missouri Department of Conservation	32
Sappington Bridge Access	Missouri Department of Conservation	8
Meramec State Park	Missouri Department of Natural Resources	6551
Onondaga Cave State Park	Missouri Department of Natural Resources	974
Mark Twain National Forest	USDA Forest Service	36370

153 Harold Alexander AR 43,800 acres

CENTRAL PLATEAU

Rolling upland landscape between the Strawberry and Spring rivers, characterized by oak and oak pine woodlands on the broad upland ridges, with strong carbonate influence on mid and lower slopes, and frequent rock exposures and small glades. Small streams with Alder thickets, fen systems, and small springs are common.

Threat Rank – High

Principal stresses
- altered fire regime
- habitat destruction
- habitat fragmentation

Community Targets

Acid deciduous woodland complex
Alder thicket
Cane break
Carbonate rock wash
Carbonate talus
Dolomite glade complex
Dry carbonate cliff
Forested fen
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Moist carbonate cliff
Ozark fen complex
Ozark gravel bar
Ozark riparian woodland complex
Pine-oak woodland complex
Shortleaf pinery complex
Siliceous rock wash
Spring system
Streamside fen

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
PENSTEMON COBAEA PURPUREUS	PURPLE BEARD-TONGUE	G4T	OZ	Plant-Vascular
SCUTELLARIA BUSHII	BUSH'S SKULLCAP	G3	OZ	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Harold Alexander	Arkansas Game & Fish	13,570
Strawberry River Preserve	The Nature Conservancy	530

155 White Ranch ARMO 68,000 acres

CENTRAL PLATEAU

Broad, undulating upland with low to moderate dissection and generally narrow valleys. Uplands are dominated by open oak woodlands and post oak flatwoods in the extensive flat uplands underlain by clay fragipans. Dolomite exposures are common, with small glades and bluffs. Valleys have high-base woodlands, with small fens and springs. Small prairies were once a regular feature of the landscape, but are most eliminated.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex
Acid upland prairie
Carbonate rock wash
Carbonate talus
Dolomite glade complex
Dry carbonate cliff
Freshwater marsh
Mesic prairie
Moist carbonate cliff
Ozark fen complex
Prairie fen
Sinkhole pond shrub swamp
Spring system
Streamside fen
Upland flatwoods

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
NEMASTYLIS NUTTALLII	CELESTIAL LILY	G4	MOD	Plant-Vascular
SCHOENOPLECTUS HALLII (SCIRPUS)	HALL'S BULRUSH	G2	R	Plant-Vascular
TRILLIUM PUSILLUM VAR OZARKANUM	OZARK WAKE ROBIN	G3T3	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Tingler Lake Conservation Area	Missouri Department of Conservation	254
Vanderhoef (Archie & Gracie) Memorial State Forest	Missouri Department of Conservation	145
West Plains Towersite	Missouri Department of Conservation	2
White Ranch Conservation Area	Missouri Department of Conservation	6684

156 Poplar Bluff Pinery MO 30,500 acres

BLACK RIVER OZARK BORDER

Moderately dissected ridge system developed in sandstone and cherty dolomite in the uplands of the Black River drainage. Extensive areas of pine woodland occurred on broad ridges, and oak pine woodland on the dissected uplands. More protected and dissected regions were characterized by deciduous woodland complexes on both acidic and high base soils. Bedrock exposures are small and uncommon.

Threat Rank – High

Primary stresses - altered fire regimes
- habitat destruction

Community Targets

Acid deciduous woodland complex	Ozark gravel bar
High-base deciduous woodland complex	Ozark riparian woodland complex
Mesophytic deciduous woodland complex	Shortleaf pinery complex
Ozark fen complex	Sinkhole pond shrub swamp

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
MNIOTILTA VARIA	BLACK-AND-WHITE WARBLER	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird

Managed Areas

Area Name	Owner	Size
Mark Twain National Forest	USDA Forest Service	26,000

157 Mud Creek MO 9,410 acres

BLACK RIVER OZARK BORDER

Moderately dissected undulating upland system on the south edge of the Ozark escarpment, characterized by weathered acidic soils, many of which have clay fragipans. Broad uplands are characterized by post oak flatwoods and open oak woodlands. Extensive wooded bottomlands along Mud Creek harbor a diverse suite of lowland forest and woodland communities.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex
Mesophytic bottomland woodland complex
Ozark riparian woodland complex
Upland flatwoods

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAPRIMULGUS CAROLINENSIS	CHUCK-WILL'S-WIDOW	G5	MOD	Bird
CAPRIMULGUS VOCIFERUS	WHIP-POOR-WILL	G5	MOD	Bird
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird

Managed Areas

Area Name	Owner	Size
University Forest	Missouri Department of Conservation	2,000
Mark Twain National Forest	USDA Forest Service	4,000

159 Mudlick Mountain. MO 12,700 acres

ST. FRANCOIS KNOBS AND BASINS

Rugged, low mountain topography associated with ancient igneous knobs, including the confluence of Big Creek and the St. Francis River. Uplands are characterized by extensive igneous upland systems, including glades, sterile open deciduous woodlands, and pine and oak pine woodlands. Localized dolomite exposures in the valleys support high base deciduous woodlands. Streams systems support acid seeps, rock wash, and alder thicket communities.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex
Acid seep
Alder thicket
Dry siliceous cliff
High-base deciduous woodland complex
Igneous glade complex
Igneous talus
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Moist siliceous cliff
Ozark gravel bar
Ozark riparian woodland complex
Ozark slough
Pine-oak woodland complex
Shortleaf pinery complex
Siliceous rock wash

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
MNIOTILTA VARIA	BLACK-AND-WHITE WARBLER	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
THRYOMANES BEWICKII	EASTERN BEWICK'S WREN	G5	MOD	Bird
NEOTOMA FLORIDANA OSAGENISIS	OSAGE WOODRAT	G5T3?	OZ	Mammal

Managed Areas

Area Name	Owner	Size
Graves Mountain	Missouri Department of Conservation	1,750
Sam A. Baker State Park	Missouri Department of Natural Resources	5,400

160 Cherokee-Gruber OK 71,300 acres

LOWER BOSTON MOUNTAINS

Gently rolling upland hills landscape encompassing the middle and lower drainage of Greenleaf Creek. Uplands are characterized by the westernmost expression of oak and oak pine woodland systems on the Ozarks. The landscape harbors the largest population of the American Burying Beetle in the Ozarks.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex

Mesophytic deciduous woodland complex

Pine-oak woodland complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBYSTOMA ANNULATUM	RINGED SALAMANDER	G4	OZ	Amphibian
NICROPHORUS AMERICANUS	AMERICAN BURYING BEETLE	G1	R	Invertebrate-Insect
VALERIANELLA NUTTALLII	NUTTALL CORN-SALAD	G1G2	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Cherokee Wildlife Management Area	Oklahoma Department of Wildlife Conservation	31,360
Tenkiller Wildlife Management Area	Oklahoma Department of Wildlife Conservation	2067
Burnt Cabin Ridge State Park	Oklahoma State Park	698
Greenleaf State Park	Oklahoma State Park	389
Pine Creek Cove State Park	Oklahoma State Park	514
Tenkiller Lake Project	US Army Corp of Engineers	2
Camp Gruber	US Department of Defense	32,027

161 Garret Hollow AR 63,700 acres

LOWER BOSTON MOUNTAINS

Steep, mountainous landscape on the western edge of the Boston Mountains, principally within the Ozark National Forest. Uplands are characterized by pine oak and oak woodlands. Both siliceous and carbonate bedrock exposures occur, with some sandstone glades. Streams support siliceous rock wash and Alder thicket communities.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex

Alder thicket

Carbonate rock wash

Dry carbonate cliff

High-base deciduous woodland complex

Mesophytic deciduous woodland complex

Moist carbonate cliff

Ozark gravel bar

Ozark riparian woodland complex

Pine-oak woodland complex

Sandstone glade complex

Siliceous rock wash

Managed Areas

Area Name	Owner	Size
Devils Den	Arkansas State Park	2,035
Ozark National Forest	USDA Forest Service	40,000

162 Rock Pile Mountain MO 15,000 acres

ST. FRANCOIS KNOBS AND BASINS

Rugged knobs landscape in the upper St. Francis River basin, primarily within the Fredericktown Ranger District of the Mark Twain National Forest. The landscape is developed from ancient igneous uplifts, and includes Rockpile Mountain Wilderness. Uplands are dominated by acidic, excessively drained systems, including glades, talus slopes, savannas, and both oak and oak pine woodlands. While most of the St. Francois Mountain landscape is characterized by rhyolitic knobs, this landscape is the best representation of an igneous system developed in granite.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex
Alder thicket
Dry siliceous cliff
Igneous glade complex
Igneous talus
Mesophytic bottomland woodland complex
Mesophytic deciduous woodland complex
Moist siliceous cliff
Ozark gravel bar
Ozark riparian woodland complex
Pine-oak woodland complex
Siliceous rock wash

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CONTOPUS VIRENS	EASTERN WOOD PEWEE	G5	MOD	Bird
HYLOCICHLA MUSTELINA	WOOD THRUSH	G5	MOD	Bird
PIRANGA RUBRA	SUMMER TANAGER	G5	MOD	Bird
SEIURUS MOTACILLA	LOUISIANA WATERTHRUSH	G5	MOD	Bird
SITTA CAROLINENSIS	WHITE-BREASTED NUTHATCH	G5	MOD	Bird
DRABA APRICA	WHITLOW GRASS	G3	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Mark Twain National Forest	USDA Forest Service	10,000

163 Jefferson County Glades MO 27,200 acres

OUTER OZARK BORDER

Moderately dissected rolling upland plain with extensive dolomite exposures, and ridges and upland flats characterized by oak woodlands developed ion cherty clay residuum. Dolomite glades and high-base woodlands are common, with some individual glades exceeding 200 acres. These glades are the most extensive dolomite glades outside of the White River Hills, and capture the center of one of two limited areas that constitute the global range of Fremont's Leather Flower – the other being the Central Mixed Grass Prairie ecoregion of north-central Kansas.

Threat Rank – High

Principal stresses - altered fire regime
- habitat destruction
- habitat fragmentation

Community Targets

Carbonate rock wash
Dolomite glade complex
High-base deciduous woodland complex
Mesophytic bottomland woodland complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CLEMATIS FREMONTII	FREMONT'S LEATHER FLOWER	G5	MOD	Plant-Vascular
SOLIDAGO GATTINGERI	GATTINGER'S GOLDENROD	G3?Q	MOD	Plant-Vascular

Managed Areas

Area Name	Owner	Size
Victoria Glade	The Nature Conservancy	130
Victoria Glade	Missouri Department of Conservation	230
Valley View Glades	Missouri Department of Conservation	210

164 Pump Hollow MO 1,170 acres

BLACK RIVER OZARK BORDER

A small dissected basin developed in sandstone along the drainage of Tenmile Creek, in the Poplar Bluff Ranger District of the Mark Twain National Forest. Uplands are dominated by acidic soils supporting pine-oak and pine woodlands, with frequent acid seeps along the drainage bottom.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex

Acid seep

Pine-oak woodland complex

Managed Areas

Area Name	Owner	Size
Mark Twain National Forest	USDA Forest Service	1,100

Appendix 4C. List of Targets by *Small Scale Terrestrial Site* with Descriptions

205 Greenfield Glade MO Small Scale Site

SPRINGFIELD PLAIN

Degraded limestone glade complex containing one of the larger known populations of Missouri Bladderpod, embedded in a matrix of private grazing land. Although the glade systems are degraded and heavily infested with numerous introduced species, overall native plant diversity is high.

Threat Rank – High

Primary stresses
- altered fire regime
- habitat disturbance
- habitat destruction

Community Targets

Limestone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CALLIRHOE DIGITATA	FRINGED POPPY MALLOW	G4	MOD	Plant-Vascular
LESQUERELLA FILIFORMIS	MISSOURI BLADDER-POD	G3	OZ	Plant-Vascular

Managed Areas

Area Name	Owner
Greenfield Glade	The Nature Conservancy

206 Wilson's Creek MO Small Scale Site

SPRINGFIELD PLAIN

Limestone glade complex with population of Missouri Bladderpod. Overall glade quality ranges from good to densely overgrown, with surrounding landscape of woodlands and old fields.

Threat Rank - Low

Community Targets

Limestone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
LESQUERELLA FILIFORMIS	MISSOURI BLADDER-POD	G3	OZ	Plant-Vascular

Managed Areas

Area Name	Owner
Wilson's Creek National Battlefield	US National Park Service

207 Bois D'Arc MO Small Scale Site

SPRINGFIELD PLAIN

Overgrown limestone glade system containing large population of Missouri Bladderpod embedded in a matrix of old pasture and degraded woodlands with significant restoration potential. Glade quality ranges from high quality to severely degraded, with bladderpod populations throughout.

Threat Rank - Medium

Community Targets

Limestone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
LESQUERELLA FILIFORMIS	MISSOURI BLADDER-POD	G3	OZ	Plant-Vascular

Managed Areas

Area Name	Owner
Bois D'Arc	Missouri Department of Conservation

208 Two Horse Glade MO Small Scale Site

SPRINGFIELD PLAIN

Small limestone glade with population of Missouri Bladderpod; grazed limestone glade embedded in fescue pasture and overgrown shrubby hillsides.

Threat Rank - Medium

Community Targets

Limestone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
LESQUERELLA FILIFORMIS	MISSOURI BLADDER-POD	G3	OZ	Plant-Vascular

Managed Areas

Area Name	Owner
Nathan Boone Home	Missouri Department of Natural Resources

209 Roberts Field MO Small Scale Site

SPRINGFIELD PLAIN

Small pastured limestone glade system in grazing landscape. Overall glade quality moderate, surrounding lands primarily grazed fescue pasture with areas of shrubby invasion.

Threat Rank – High

Primary stresses - altered fire regime
- habitat destruction

Community Targets

Limestone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
LESQUERELLA FILIFORMIS	MISSOURI BLADDER-POD	G3	OZ	Plant-Vascular

210 Clear Creek Glade MO Small Scale Site

SPRINGFIELD PLAIN

Limestone glade system embedded in grazing landscape dominated by fescue pasture, with large population of Missouri Bladderpod. [Note: recent unconfirmed report that this site has been subdivided for development]

Threat Rank - High

Primary stresses - altered fire regime
- habitat destruction

Community Targets

Limestone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
LESQUERELLA FILIFORMIS	MISSOURI BLADDER-POD	G3	OZ	Plant-Vascular

211 Phenix Glade MO Small Scale Site

SPRINGFIELD PLAIN

Limestone glade complex with Missouri Bladderpod population, embedded in a landscape of fescue pasture; some glade areas overgrown with cedar.

Threat Rank - High

Primary stresses - altered fire regime
- habitat disturbance
- habitat destruction

Community Targets

Limestone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
LESQUERELLA FILIFORMIS	MISSOURI BLADDER-POD	G3	OZ	Plant-Vascular

212 Rocky Barrens MO Small Scale Site

SPRINGFIELD PLAIN

Extensive limestone glade system and associated limestone woodland complex, with large population of Missouri Bladderpod, in an area that is rapidly undergoing ranchette development. Surrounding landscape is a mixture of acreage homesites, fescue pasture, and overgrown glades and woodlands.

Threat Rank - Medium

Community Targets

Limestone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
LESQUERELLA FILIFORMIS	MISSOURI BLADDER-POD	G3	OZ	Plant-Vascular

Managed Areas

Area Name	Owner
Rocky Barrens	Missouri Department of Conservation
Rocky Barrens	The Nature Conservancy

213 Highway O Glade MO Small Scale Site

SPRINGFIELD PLAIN

Limestone glade with some areas of high quality glade, embedded in landscape of acreage homesites; glade condition generally good, with minimal woody encroachment.

Threat Rank - High

Primary stresses - altered fire regime
- habitat disturbance
- habitat destruction

Community Targets

Limestone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
LESQUERELLA FILIFORMIS	MISSOURI BLADDER-POD	G3	OZ	Plant-Vascular

214 Pertuche Glade MO Small Scale Site

SPRINGFIELD PLAIN

Limestone glade with population of Missouri Bladderpod, surrounded by woodlands and fescue fields, in an area experiencing urban growth pressures from the city of Springfield. [Note: recent unconfirmed report of pending subdivision]

Threat Rank - High

Primary stresses - altered fire regime
- habitat disturbance
- habitat destruction

Community Targets

Limestone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
LESQUERELLA FILIFORMIS	MISSOURI BLADDER-POD	G3	OZ	Plant-Vascular

215 Corry Branch Glade MO Small Scale Site

SPRINGFIELD PLAIN

Pennsylvanian channel sandstone glade complex overlooking Stockton Lake, with population of Geocarpon. Moderate cedar encroachment, surrounding landscape is recovering sandstone woodland complex of moderate to high quality, with active restoration.

Threat Rank - Medium

Community Targets

Sandstone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
GEOCARPON MINIMUM	GEOCARPON	G2	MOD	Plant-Vascular

Managed Areas

Area Name	Owner
Stockton Lake	US Army Corps of Engineers

216 Corry Flatrocks MO Small Scale Site

SPRINGFIELD PLAIN

Large sandstone glade in Pennsylvanian channel sandstone, with extensive population of Geocarpon; surrounding lands mostly fescue pasture, with some areas of sandstone woodlands.

Threat Rank - Medium

Community Targets

Sandstone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
GEOCARPON MINIMUM	GEOCARPON	G2	MOD	Plant-Vascular
SAXIFRAGA TEXANA	TEXAS SAXIFRAGE	G4	MOD	Plant-Vascular
SELENIA AUREA	GOLDEN SELENIA	G4G5	MOD	Plant-Vascular

Managed Areas

Area Name	Owner
Corry Flatrocks	The Nature Conservancy

217 Rice Glade MO Small Scale Site

SPRINGFIELD PLAIN

Glade in Pennsylvanian channel sandstone, with population of Geocarpon in a heavily grazed fescue pasture.

Threat Rank - High

Primary stresses
- altered fire regime
- habitat disturbance
- habitat destruction

Community Targets

Sandstone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
GEOCARPON MINIMUM	GEOCARPON	G2	MOD	Plant-Vascular

218 Eudora Glade MO Small Scale Site

SPRINGFIELD PLAIN

Sandstone glade developed in Pennsylvanian channel sandstone, with population of Geocarpon; glade quality ranges from moderate to high, with more diversity of bedrock conditions than most channel sands glades. Lichen diversity unusually high.

Threat Rank - Medium

Community Targets

Sandstone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
GEOCARPON MINIMUM	GEOCARPON	G2	MOD	Plant-Vascular

219 Maze Creek Powerline MO Small Scale Site

SPRINGFIELD PLAIN

Sandstone glade developed in Pennsylvanian channel sandstone, with population of Geocarpon; embedded in a grazed fescue pasture.

Threat Rank - High

Primary stresses
- altered fire regime
- habitat disturbance
- habitat destruction

Community Targets

Sandstone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
GEOCARPON MINIMUM	GEOCARPON	G2	MOD	Plant-Vascular

220 Carmack Branch Glade MO Small Scale Site

SPRINGFIELD PLAIN

Grazed, degraded sandstone glade developed in Pennsylvanian channel sandstone, with population of Geocarpon; surrounded by acid oak woodland complex.

Threat Rank - Medium

Community Targets

Sandstone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
GEOCARPON MINIMUM	GEOCARPON	G2	MOD	Plant-Vascular

221 Maze Creek MO Small Scale Site

SPRINGFIELD PLAIN

Sandstone glade developed in Pennsylvanian channel sandstone adjacent to Stockton Lake, with population of Geocarpon; surrounding landscape mixture of grazed fescue pasture and sandstone woodland in protected ownership.

Threat Rank - Medium

Community Targets
Sandstone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
GEOCARPON MINIMUM	GEOCARPON	G2	MOD	Plant-Vascular

Managed Areas

Area Name	Owner
Stockton Lake	US Army Corps of Engineers

222 Bona Glade MO Small Scale Site

SPRINGFIELD PLAIN

Sandstone glade developed in Pennsylvanian channel sandstone, with population of Geocarpon in small glade opening; embedded in a xeric sandstone woodland complex.

Threat Rank - Medium

Community Targets
Sandstone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
GEOCARPON MINIMUM	GEOCARPON	G2	MOD	Plant-Vascular

Managed Areas

Area Name	Owner
Stockton Lake	US Army Corps of Engineers

223 Flint Hill Glades MO Small Scale Site

SPRINGFIELD PLAIN

Sandstone glade system developed in Pennsylvanian channel sandstone, with population of Geocarpon. Glades are associated with a upland sandstone glade complex. Extreme lower portion of glade subject to inundation from lake.

Threat Rank - Medium

Community Targets
Sandstone glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
GEOCARPON MINIMUM	GEOCARPON	G2	MOD	Plant-Vascular

Managed Areas

Area Name	Owner
Stockton Lake	US Army Corps of Engineers

400 Aux Vasse Glade MO Small Scale Site

OUTER OZARK BORDER

One of the northernmost known Ozarkian dolomite glades, with the northernmost known population of Bush's Yellow Coneflower. Good quality dolomite glade/high-base upland woods complex along a small stream system.

Threat Rank - High

Primary stresses
- altered fire regime
- habitat disturbance
- habitat destruction

Community Targets

Dolomite glade complex

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
ECHINACEA PARADOXA	BUSH'S YELLOW CONEFLOWER	G2	OZ	Plant-Vascular

401 Poag Railroad Prairie IL Small Scale Site

MISSISSIPPI RIVER ALLUVIAL

Small scale site with high quality remnants of globally rare (G1) mesic sand prairie and G2 rated wet-mesic prairie. This site is registered with the Illinois Nature Preserves Commission as a Natural Heritage Landmark and owned by the Norfolk Southern Railway Company.

Threat Rank - High

Primary stresses
- invasive species competition
- habitat fragmentation
- habitat destruction

Community Targets

Mesic prairie

Mesic sand prairie

404 Lindsey Prairie AR Small Scale Site

SPRINGFIELD PLATEAU

Small remnant prairie on a rolling upland divide in the upper Illinois River basin surrounded by cool-season pasture with cattle grazing and confined animal feed operations.

Threat Rank - High

Primary stresses
- altered fire regime
- habitat destruction

Community Targets

Acid upland prairie

Mesic prairie

408 Wildcat Glade Complex MO Small Scale Site

SPRINGFIELD PLAIN

World's only known occurrence of chert glades, occurring on massive brecciated chert exposures on the fringes of Joplin, along the Spring River and tributaries. The glades are embedded in a low density residential environment, and associated with acidic wooded uplands.

Threat Rank - Medium

Community Targets

Acid seep

Carbonate talus

Chert glade complex

Dry carbonate cliff

Dry siliceous cliff

Mesophytic bottomland woodland complex

Moist carbonate cliff

Moist siliceous cliff

Siliceous rock wash

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
SAXIFRAGA TEXANA	TEXAS SAXIFRAGE	G4	MOD	Plant-Vascular
SEDUM NUTTALLIANUM	NUTTALL'S SEDUM	G5	MOD	Plant-Vascular
SELENIA AUREA	GOLDEN SELENIA	G4G5	MOD	Plant-Vascular

Managed Areas

Area Name	Owner
Wildcat Glade	Missouri Department of Conservation

409 Murphy Pond MO Small Scale Site

SPRINGFIELD PLAIN

Sinkhole pond system in grazed pasture landscape with adjacent artificial ponds.

Threat Rank - High

Primary stresses
- sedimentation
- habitat destruction

Community Targets

Sinkhole pond shrub swamp

410 Hampton Church Sinks MO Small Scale Site

SPRINGFIELD PLAIN

Sinkhole pond on private property, located in a grazed woodlot surrounded by fescue pastures.

Threat Rank - High

Primary stresses
- sedimentation
- habitat destruction

Community Targets

Sinkhole pond marsh

411 Baker Prairie AR Small Scale Site

SPRINGFIELD PLATEAU

Small remnant prairie in the city limits of Harrison, Arkansas located between the high school and an industrial park. Local development pressure and smoke management issues limiting prescribed fire options threaten the site.

Threat Rank - High

Primary stresses
- altered fire regime
- grazing practices
- habitat destruction

Community Targets

Acid upland prairie

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TRILLIUM PUSILLUM VAR OZARKANUM	OZARK WAKE ROBIN	G3T3	MOD	Plant-Vascular

Managed Areas

Area Name	Owner
Baker Prairie	The Nature Conservancy

412 Little Proctor Creek Fen MO Small Scale Site

OSAGE RIVER HILLS

Complex of small fens associated with headwaters of small southwest-trending stream system in dissected cherty uplands.

Threat Rank - High

Primary stresses
- altered fire regime
- rural residential development
- habitat destruction

Community Targets

Ozark fen complex

413 Lichen Glade MO Small Scale Site

OSAGE RIVER HILLS

Extensive sandstone exposures forming a complex of sandstone glade, acidic woodland, and cliff communities, with associated mesic bottomland at base of slope. Surrounding landscape is a combination of acidic wooded uplands and grazed fescue pasture.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex

Dry siliceous cliff

Mesophytic bottomland woodland complex

Moist siliceous cliff

Sandstone glade complex

Managed Areas

Area Name	Owner
Lichen Glade	The Nature Conservancy

414 Pelican Island MO Small Scale Site

MISSOURI RIVER ALLUVIAL

Large wooded island along south side of Missouri River channel, ca. 10 miles above confluence with Mississippi River; includes riparian features associated with dynamic large river system.

Threat Rank - Low

Community Targets

Large river mud flat

Large river riparian woodland complex

Large river sand flat

Large river slough

Managed Areas

Area Name	Owner
Pelican Island	Missouri Department of Conservation

415 Hite Prairie MO Small Scale Site

PRAIRIE BORDER

Small, gently rolling upland prairie representing the easternmost known existing prairie remnant in the Ozarks, on the outskirts of a small city. Overall prairie condition ranges from good to badly degraded, with high aggregate vegetational diversity and active restoration efforts underway.

Threat Rank - Medium

Community Targets

Acid upland prairie

Managed Areas

Area Name	Owner
Hite Prairie	Missouri Department of Conservation

416 Ash Pond MO Small Scale Site

CENTRAL PLATEAU

Small sinkhole wetland dominated by Green Ash, Buttonbush, and sedges; in rolling upland landscape of woodlands and fescue pasture.

Threat Rank - High

Primary stresses - sedimentation
- habitat destruction

Community Targets

Pond swamp

417 St. Joe MO Small Scale Site

ST. FRANCOIS KNOBS AND BASINS

Extensive dolomite glade complex and associated wooded uplands on both dolomitic substrates and well drained chert residuum; local landscape has history of intensive lead mining and associated activities.

Threat Rank - Low

Community Targets

Acid deciduous woodland complex

Dolomite glade complex

High-base deciduous woodland complex

Managed Areas

Area Name	Owner
St. Joe State Park	Missouri Department of Natural Resources

419 Otter Creek Ponds MO Small Scale Site

BLACK RIVER OZARK BORDER

Sinkhole basin with pond marsh and pond shrub swamp communities; portions of site historically dredged, but largely recovered; private portions of site currently grazed.

Threat Rank - Low

Community Targets

Sinkhole pond marsh

Managed Areas

Area Name	Owner
Mark Twain National Forest	USDA Forest Service

420 Coonville Creek MO Small Scale Site

ST. FRANCOIS KNOBS AND BASINS

High quality woodland system associated with a small stream developed in dolomite bedrock, with extensive dolomite exposures forming small glades and wetland fens and seeps, as well as woodlands in both carbonate and siliceous substrates.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex

Alder thicket

Carbonate rock wash

Carbonate talus

Dolomite glade complex

Dry carbonate cliff

High-base deciduous woodland complex

Mesophytic bottomland woodland complex

Mesophytic deciduous woodland complex

Moist carbonate cliff

Ozark fen complex

Ozark riparian woodland complex

Streamside fen

Managed Areas

Area Name	Owner
St. Francis State Park	Missouri Department of Natural Resources

421 Tree Farm Prairie MO Small Scale Site

SPRINGFIELD PLAIN

Small hardpan prairie on gently rolling site with good vegetational diversity and slight invasion from exotic species and woody encroachment.

Threat Rank - High

Primary stresses - altered fire regime
- habitat destruction

Community Targets

Mesic prairie

422 LaPetite Gemme Prairie MO Small Scale Site

SPRINGFIELD PLAIN

High quality prairie complex consisting of carbonate substrates on the slopes of a large upland knob and acidic hardpan prairie on the relatively level lands below the knob. Surrounding landscape a combination of rural/suburban development and both native and fescue grazing lands and hay pastures.

Threat Rank - Medium

Community Targets

Carbonate upland prairie
Hardpan prairie

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
ASCLEPIAS MEADII	MEAD'S MILKWEED	G2	R	Plant-Vascular

Managed Areas

Area Name	Owner
La Petite Gemme Prairie	Missouri Prairie Foundation

423 Rockhill Prairie MO Small Scale Site

OSAGE RIVER HILLS

Cherty dry-mesic upland prairie on gently south-sloping, rolling landscape; small zones of carbonate soils derived from dolomite. Much of the site has been overgrown with post-settlement woodland, and the surrounding landscape is a mixture of rural residential and fescue pasture.

Threat Rank - Medium

Community Targets

Acid upland prairie
Carbonate upland prairie

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
ASCLEPIAS MEADII	MEAD'S MILKWEED	G2	R	Plant-Vascular
ECHINACEA PARADOXA	BUSH'S YELLOW CONEFLOWER	G2	OZ	Plant-Vascular

Managed Areas

Area Name	Owner
Rockhill Prairie	The Nature Conservancy

424 Warren Prairie (a.k.a. Warren Branch Prairie) MO Small Scale Site

SPRINGFIELD PLAIN

Diverse dry-mesic chert prairie on rolling uplands with patchy fescue invasion; surrounded by crop fields.

Threat Rank - High

Primary stresses - altered fire regime
- habitat destruction

Community Targets

Acid upland prairie

425 Bonne Femme Hill MO Small Scale Site

OUTER OZARK BORDER

Prairie developed on glacial loess deposits on a south facing bluff system on the north edge of the Missouri River Valley. Small limestone glade outcrops are found in an oak-hickory woodland of the steep slopes of the site.

Threat Rank - High

Primary stresses
- altered fire regime
- habitat disturbance
- habitat destruction

Community Targets

Eastern loess hill prairie

Limestone glade complex

426 Buzzard's Bluff MO Small Scale Site

OSAGE RIVER HILLS

Massive sandstone bluff system along the Sac River, with a unique dwarf woodland at the bluff summit, as well as associated cliff, talus, and acidic woodland communities; embedded in a landscape of wooded uplands and fescue pastures.

Threat Rank - Medium

Community Targets

Acid deciduous woodland complex

Dry siliceous cliff

Moist siliceous cliff

Sandstone glade complex

Sandstone talus

Species Targets

Scientific Name	Common Name	Rank	Global Class	Target Type	Taxa
GEOCARPON MINIMUM	GEOCARPON	G2	MOD	Plant-Vascular	

427 Horseshoe Lake IL Small Scale Site

MISSISSIPPI RIVER ALLUVIAL

Low floodplain area for the Mississippi River. This site was formed through ecological processes that isolated a flowing channel of the river, forming a natural oxbow lake. In 2001, the Horseshoe Lake population of the endemic Boltonia decurrens (decurrent false aster) was estimated at 4,000 individuals.

Threat Rank - Medium

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
BOLTONIA DECURRENS	DECURRENT FALSE ASTER	G2	R	Plant-Vascular

Managed Areas

Area Name	Owner
Horseshoe Lake State Park	Illinois State Park

428 Fairmont City IL Small Scale Site

MISSISSIPPI RIVER ALLUVIAL

Located in a highly urbanized area on what was formerly a golf course. In 2001, the Fairmont City population of Boltonia decurrens (decurrent false aster) consisted of 203 individuals, up from just three plants a decade earlier.

Threat Rank - High

Primary stresses
- altered hydrology
- toxins and contaminants

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
BOLTONIA DECURRENS	DECURRENT FALSE ASTER	G2	R	Plant-Vascular

429 Mount Vernon Prairie MO Small Scale Site

SPRINGFIELD PLAIN

Small dry-mesic tallgrass prairie system on Pennsylvanian sandstone/shale substrates in an undifferentiated upland; surrounded by agricultural lands. Overall vegetation diversity is moderate with some brush encroachment and invasive species issues.

Threat Rank - Medium

Community Targets

Acid upland prairie

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CHAETOCNEMA ELONGATULA	LEAF BEETLE	G?	OZ	Invertebrate-Insect

Managed Areas

Area Name	Owner
Mount Vernon Prairie	The Nature Conservancy

Appendix 4D. List of Targets by *Karst Area* with Descriptions

700 Renault Karst IL 42,100 acres

EASTERN BORDER KARST SUBSECTION

System of caverns and subterranean streams developed under a sinkhole plain; host to the globally imperiled Illinois Cave Amphipod as well as several other imperiled or endemic karst species. Extensive agricultural and residential development on the sinkhole plain above the cave systems has altered water flow and introduced excess nutrients and pollutants to the sensitive subterranean aquatic species and habitat.

Threat Rank - High

Primary stresses
- habitat disturbance
- altered flow regime
- nutrient loading

Community Targets

Cave-Aquatic-4

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
GAMMARUS ACHERONDYTES- 4	ILLINIOS CAVE AMPHIPOD	G1G2	R	Invertebrate-Amphipod
ARRHOPALITES CAROLYNAE	CAVE SPRINGTAIL	G2G3	R	Invertebrate-Insect
ARRHOPALITES HIRTUS	CAVE SPRINGTAIL	G2	R	Invertebrate-Insect
MUNDOCHTHONIUS CAVERNICOLUS	TROGLOBITIC PSEUDOSCORPION	G3G4	OZ	Invertebrate-Other
SPHALLOPLANA HUBRICHTI-2	CAVE PLANARIAN	G3G4	OZ	Invertebrate-Other
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Fogelpole Cave Nature Preserve	Illinois State Nature Preserve
Illinois Caverns Sate Natural Area	Illinois Department of Natural Resources

701 Columbia Karst IL 13,200 acres

EASTERN BORDER KARST SUBSECTION

Small section of the Ozark Plateau isolated from the Missouri Ozarks by the Mississippi River. The Columbia Karst is devoid of sinkholes and includes the Stemler Cave System, as well as dozens of smaller caves.

Threat Rank – Very High

Primary stresses
- nutrient loading
- habitat destruction
- altered flow regime
- habitat disturbance

Community Targets

Cave-Aquatic

Spring System

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
SPHALLOPLANA HUBRICHTI	CAVE PLANARIAN	G3G4	OZ	Invertebrate-Other
FONTIGENS ANTROECETES	ENIGMATIC CAVESNAIL	G2	R	Invertebrate-Snail

Managed Areas

Area Name	Owner
Stemler Cave Woods Nature Preserve	Illinois State Nature Preserve

702 Ste. Genevieve Karst MO 7,540 acres

EASTERN BORDER KARST SUBSECTION

Small karst area on the rollings uplands near Ste. Genevieve, Missouri with a subterranean aquatic cave system that includes the only known location for the imperiled cave beetle *Xenotrechus denticollis*. Much of the uplands feeding water into this subsurface aquatic system are grazed pastures and developing rural residential areas that threaten water quality.

Threat Rank - High

Primary stresses - habitat disturbance
- habitat destruction

Community Targets

Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
XENOTRECHUS DENTICOLLIS	CAVE BEETLE	G1G2	OZ	Invertebrate-Insect
SPHALLOPLANA HUBRICHTI	CAVE PLANARIAN	G3G4	OZ	Invertebrate-Other

703 Perryville Karst MO 36,500 acres

EASTERN BORDER KARST SUBSECTION

Extensive karst plain with complex subsurface cave and stream networks under the rolling uplands around Perryville, Missouri, including the longest cave systems in the ecoregion. Numerous endemic and imperiled species are found in caves and cave stream systems in this area, including all globally known occurrences for five karst species: a springtail *Oncopodura hoffi*, a cave pseudoscorpion *Apocthonius mysterius*, the Stygian Cavesnail *Amnicola stygius*, Lewis' Planarian *Macrocotyla lewisi*, and a cave planarian *Sphalloplana evaginata*. Nearly all of the surrounding upland sinkhole plain has been converted to row-crop agriculture, cool season grazed pasture, and urban and suburban residential development. Groundwater pollution issues dominate the threats to this area.

Threat Rank - High

Primary stresses - habitat disturbance
- habitat destruction

Community Targets

Cave-Aquatic-3

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
ONCOPODURA HOFFI-2	SPRINGTAIL	G1G2	OZ	Invertebrate-Insect
CAECIDOTEA ANTRICOLA-2	ISOPOD	G3G4	OZ	Invertebrate-Isopod
APOCHTHONIUS MYSTERIUS	CAVE PSEUDOSCORPION	G1G2	OZ	Invertebrate-Other
MACROCOTYLA LEWISI-2	LEWIS' PLANARIAN	G1G2	OZ	Invertebrate-Other
SPHALLOPLANA EVAGINATA	CAVE PLANARIAN	G1G2	OZ	Invertebrate-Other
AMNICOLA STYGIUS-2	STYGIAN CAVESNAIL	G1	OZ	Invertebrate-Snail
FONTIGENS ANTROECETES-3	ENIGMATIC CAVESNAIL	G2	R	Invertebrate-Snail

704 Onondaga Karst MO 20,200 acres

SALEM PLATEAU KARST SUBSECTION

Large karst area in the upper Meramec River basin around Onondaga Cave State Park with numerous small springs, caves, and cave stream systems hosting numerous endemic and imperiled species, including the only known occurrences for the Isopod *Caecidotea fustis*. Inappropriate recreational caving threatens cave habitat and groundwater pollution from residential development threatens subterranean aquatic systems.

Threat Rank - Medium

Community Targets

Cave
Cave-Aquatic-2

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	OZ	Amphibian
STYGOBROMUS ONONDAGAENSIS	ONONDAGA CAVE AMPHIPOD	G1	OZ	Invertebrate-Amphipod
CAECIDOTEA ANTRICOLA-2	ISOPOD	G3G4	OZ	Invertebrate-Isopod
CAECIDOTEA FUSTIS-3	ISOPOD	G3	OZ	Invertebrate-Isopod
FONTIGENS ALDRIICHI-2	HOOSIER AMNICOLA	G3G4	MOD	Invertebrate-Snail
MYOTIS GRISESCENS-2	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Onondaga Cave State Park	Missouri Department of Natural Resources
Huzzah Conservation Area	Missouri Department of Conservation
Mark Twain National Forest	USDA Forest Service

705 Meramec Karst MO 60,000 acres

SALEM PLATEAU KARST SUBSECTION

Extensive karst area along the middle Meramec River basin with numerous small springs, caves, and cave stream systems and habitat for numerous endemic species as well as the Federally Listed Gray and Indiana Bats. Inappropriate recreational caving threatens cave habitat and groundwater pollution from residential development threatens subterranean aquatic systems.

Threat Rank - Medium

Community Targets

Cave
Cave-Aquatic-4

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	OZ	Amphibian
ALLOCRANGONYX HUBRICHTI-2	CENTRAL MISSOURI CAVE AMPHIPOD	G1G3	OZ	Invertebrate-Amphipod
STYGOBROMUS ONONDAGAENSIS-2	ONONDAGA CAVE AMPHIPOD	G1	OZ	Invertebrate-Amphipod
CAECIDOTEA ANTRICOLA-2	ISOPOD	G3G4	OZ	Invertebrate-Isopod
CAECIDOTEA SALAMENSIS	ISOPOD	G?	OZ	Invertebrate-Isopod
FONTIGENS ALDRIICHI-2	HOOSIER AMNICOLA	G3G4	MOD	Invertebrate-Snail
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS-2	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Meramec Conservation Area	Missouri Department of Conservation
Pea Ridge Conservation Area	Missouri Department of Conservation
Meramec State Park	Missouri Department of Natural Resources

706 Short Bend Karst MO 1,660 acres

SALEM PLATEAU KARST SUBSECTION

Small karst area in the upper Meramec River basin; provides critical habitat for Federally Listed Gray Bats. Inappropriately timed recreational caving threatens the site.

Threat Rank - High

Primary stresses - habitat disturbance
- habitat destruction

Community Targets

Cave

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal

Managed Areas

Area Name	Owner
Short Bend Access	Missouri Department of Conservation

707 Pilot Knob Mine MO 1,430 acres

SALEM PLATEAU KARST SUBSECTION

Abandoned mine shaft system in an igneous knob near Pilot Knob, Missouri; provides critical habitat for Federally Listed Indiana Bats. Slowly deteriorating mine shaft integrity threatens to eliminate this habitat through collapse.

Threat Rank - Medium

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Pilot Knob	US Fish & Wildlife Service

708 Cave Ridge Karst MO 1,260 acres

SALEM PLATEAU KARST SUBSECTION

Small karst area in the rugged hills of the middle Gasconade River basin; provides subterranean aquatic habitat for an endemic cave amphipod and cave habitat for the Gray Bats. Inappropriately timed recreational caving is a threat.

Threat Rank - High
Primary stresses - habitat disturbance
- habitat destruction

Community Targets
Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
ALLOCRANGONYX HUBRICHTI	CENTRAL MISSOURI CAVE AMPHIPOD	G1G3	OZ	Invertebrate-Amphipod
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal

709 Kaintuck Karst MO 14,300 acres

SALEM PLATEAU KARST SUBSECTION

Small karst area in the hills of Little Piney Creek in the middle Gasconade River basin with cave stream systems host to several endemic aquatic species. Groundwater pollution from cattle grazing and rural residential development threaten the area.

Threat Rank - Medium

Community Targets
Cave-Aquatic-2

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	OZ	Amphibian
ALLOCRANGONYX HUBRICHTI	CENTRAL MISSOURI CAVE AMPHIPOD	G1G3	OZ	Invertebrate-Amphipod
CAECIDOTEA SALAMENSIS	ISOPOD	G?	OZ	Invertebrate-Isopod

Managed Areas

Area Name	Owner
Mark Twain National Forest	USDA Forest Service

710 Waynesville Karst MO 50,100 acres

SALEM PLATEAU KARST SUBSECTION

Extensive karst area in the hills of the upper Gasconade River basin with numerous caves and springs, including Roubidoux Spring near Waynesville, Missouri hosting numerous endemic species; provides critical habitat for Federally Listed Gray and Indiana bats. Groundwater pollution from urban and rural residential development threaten springs and subterranean aquatic habitat and inappropriately timed recreational caving threatens bat caves.

Threat Rank - High

Primary stresses
- urban runoff
- habitat disturbance
- habitat destruction

Community Targets

Cave
Cave-Aquatic-2
Spring System

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	OZ	Amphibian
ALLOCRANGONYX HUBRICHTI-2	CENTRAL MISSOURI CAVE AMPHIPOD	G1G3	OZ	Invertebrate-Amphipod
STYGOBROMUS ONONDAGAENSIS	ONONDAGA CAVE AMPHIPOD	G1	OZ	Invertebrate-Amphipod
CAMBARUS HUBRICHTI	SALEM CAVE CRAYFISH	G2	OZ	Invertebrate-Crayfish
CAECIDOTEA ANTRICOLA-2	ISOPOD	G3G4	OZ	Invertebrate-Isopod
MYOTIS GRISESCENS-2	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Great Spirit Cave	Missouri Department of Conservation
Mark Twain National Forest	USDA Forest Service

711 Climax Springs Karst MO 15,600 acres

SALEM PLATEAU KARST SUBSECTION

Area of dissected karst uplands southwest of the Lake of the Ozarks; provides critical habitat for Federally Listed Gray Bats. Inappropriately timed recreational caving threatens the sites.

Threat Rank - High

Primary stresses
- habitat disturbance
- habitat destruction

Community Targets

Cave-2

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
MYOTIS GRISESCENS-2	GRAY BAT	G3	MOD	Mammal

Managed Areas

Area Name	Owner
Moles Cave Conservation Area	Missouri Department of Conservation

712 Ozark Caverns MO 2,120 acres

SALEM PLATEAU KARST SUBSECTION

Small karst area of springs and a cave system with public lantern tours located at Lake of the Ozarks State Park with several endemic species. Groundwater pollution from surface recharge area threatens the site.

Threat Rank - Medium

Community Targets
Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	OZ	Amphibian
CAECIDOTEA ANCYLA	ISOPOD	G2G3	OZ	Invertebrate-Isopod
CAECIDOTEA SALAMENSIS	ISOPOD	G?	OZ	Invertebrate-Isopod

Managed Areas

Area Name	Owner
Lake of the Ozarks State Park	Missouri Department of Natural Resources

713 Ha Ha Tonka Karst MO 9,220 acres

SALEM PLATEAU KARST SUBSECTION

Small area of karst around Ha Ha Tonka State Park including River Cave; provides habitat for Federally Listed Indiana and Gray bats and includes a cave stream system with endemic species. Groundwater pollution from residential development in the surface recharge area threatens the site.

Threat Rank - Medium

Community Targets
Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	OZ	Amphibian
STYGOBROMUS ONONDAGAENSIS	ONONDAGA CAVE AMPHIPOD	G1	OZ	Invertebrate-Amphipod
CAECIDOTEA ANTRICOLA	ISOPOD	G3G4	OZ	Invertebrate-Isopod
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Ha Ha Tonka State Park	Missouri Department of Natural Resources

714 Cross Timbers Karst MO 4,890 acres

SALEM PLATEAU KARST SUBSECTION

Small area of dissected hills of the Pomme de Terre River; provides critical habitat for Federally Listed Gray Bats. Inappropriately timed recreational caving threatens the site.

Threat Rank - Medium

Community Targets
Cave

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal

Managed Areas

Area Name	Owner
Harry S. Truman Reservoir	US Army Corp of Engineers

715 Pierpont Karst MO 5,710 acres

NORTHERN BORDER KARST SUBSECTION

Small karst area with subterranean aquatic habitat under a sinkhole plain south of Columbia, Missouri at Rock Bridge State Park hosts the only known location for the endemic and imperiled Pink Planarian *Macrocotyla glandulosa*. Much of the uplands outside the state park have been converted to grazed cool season pasture and rural residential development threatens water quality at the site.

Threat Rank - High

Primary stresses - habitat disturbance
- habitat destruction

Community Targets

Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
MACROCOTYLA GLANDULOSA	PINK PLANARIAN	G1G3	R	Invertebrate-Other
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal

Managed Areas

Area Name	Owner
Rockbridge State Park	Missouri Department of Natural Resources

716 Lewis & Clark Karst MO 3,250 acres

NORTHERN BORDER KARST SUBSECTION

Small cave system along the north edge of the Missouri River valley; provides critical habitat for Federally Listed Gray and Indiana bats.

Threat Rank - Medium

Community Targets

Cave

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Boone Cave Conservation Area	Missouri Department of Conservation

717 Fantastic Caverns MO 19,300 acres

SPRINGFIELD KARST SUBSECTION

Extensive limestone cave system north of Springfield, Missouri with commercial tours and significant populations of endemic and imperiled Ozark Cavefish and Bristly Cave Crayfish. Pollution from urban and suburban residential development within the surface recharge of the area threatens the site.

Threat Rank - High

Primary stresses - habitat disturbance
- habitat destruction

Community Targets

Cave-Aquatic-2

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	OZ	Amphibian
AMBLYOPSIS ROSAE-2	OZARK CAVEFISH	G2G3	OZ	Fish
CAMBARUS SETOSUS-2	BRISTLY CAVE CRAYFISH	G2	OZ	Invertebrate-Crayfish

718 Paris Springs Karst MO 9,920 acres

SPRINGFIELD KARST SUBSECTION

Small subterranean limestone cave stream system in the Springfield Plain with critical habitat for the imperiled and Federally Listed Ozark Cavefish, Bristly Cave Crayfish and Gray Bats. Much of the uplands feeding water into this subsurface aquatic system are grazed pastures and developing rural residential areas that threaten water quality. Inappropriately timed recreational caving also threatens the site.

Threat Rank - Medium

Community Targets
Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLYOPSIS ROSAE	OZARK CAVEFISH	G2G3	OZ	Fish
STYGOBROMUS ONONDAGAENSIS	ONONDAGA CAVE AMPHIPOD	G1	OZ	Invertebrate-Amphipod
CAMBARUS SETOSUS	BRISTLY CAVE CRAYFISH	G2	OZ	Invertebrate-Crayfish
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal

Managed Areas

Area Name	Owner
Paris Springs Access	Missouri Department of Conservation

719 Crane Creek Karst MO 2,090 acres

SPRINGFIELD KARST SUBSECTION

A small area of subterranean aquatic habitat in the hills of the James River south of Springfield, Missouri. Significant populations of the endemic and imperiled Ozark Cavefish and Bristly Cave Crayfish are found in the cave stream system. Non-point source pollution threatens the water quality of the site.

Threat Rank - High
Primary stresses - habitat disturbance
- habitat destruction

Community Targets
Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLYOPSIS ROSAE	OZARK CAVEFISH	G2G3	OZ	Fish
CAMBARUS SETOSUS	BRISTLY CAVE CRAYFISH	G2	OZ	Invertebrate-Crayfish

720 Center Creek Karst MO 40,900 acres

SPRINGFIELD KARST SUBSECTION

Gently rolling karst upland in the upper reaches of the Spring River basin along Center Creek in limestone of the Springfield Plain. Significant subterranean aquatic habitat in this area contains multiple populations of the endemic and imperiled Ozark Crayfish and Bristly Cave Crayfish. Extensive portions of the cave stream systems extend for miles in the subsurface beyond the small accessible areas near the entrances of these cave systems. Much of the uplands feeding water into the area are grazed pastures and developing rural residential areas that threaten water quality.

Threat Rank - High

Primary stresses - habitat disturbance
- habitat destruction

Community Targets

Cave-Aquatic-3

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLYOPSIS ROSAE-2	OZARK CAVEFISH	G2G3	OZ	Fish
CAMBARUS SETOSUS-3	BRISTLY CAVE CRAYFISH	G2	OZ	Invertebrate-Crayfish

721 Stutts Karst MO 3,520 acres

WHITE RIVER KARST SUBSECTION

Small karst area in the hills of the upper White River basin southeast of Springfield, Missouri host to endemic species; provides critical habitat for Federally Listed Gray Bats. Inappropriately timed recreational caving and groundwater pollution from rural residential development threatens the sites.

Threat Rank - High

Primary stresses - habitat disturbance
- habitat destruction

Community Targets

Cave

Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS-2	GROTTO SALAMANDER	G4	OZ	Amphibian
APOCHTHONIUS TYPHLUS	CAVE PSEUDOSCORPION	G1G2	OZ	Invertebrate-Other
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal

722 Hub City Karst MO 5,110 acres

WHITE RIVER KARST SUBSECTION

Small area of karst in the hills of the upper White River basin north of Table Rock Lake. Small caves host several endemic species such as the Ozark Big-Eared Bat. Inappropriately timed recreational caving and groundwater pollution from rural residential development threatens the sites.

Threat Rank - Medium

Community Targets

Cave-Aquatic-2

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS-2	GROTTO SALAMANDER	G4	OZ	Amphibian
STYGOBROMUS OZARKENSIS-2	OZARK CAVE AMPHIPOD	G3G4	OZ	Invertebrate-Amphipod
CAECIDOTEA DIMORPHA	ISOPOD	G1G3	OZ	Invertebrate-Isopod
CORYNORHINUS TOWNSEDII INGENS	OZARK BIG-EARED BAT	G4T1	OZ	Mammal

Managed Areas

Area Name	Owner
Mark Twain National Forest	USDA Forest Service

723 Radium Spring Karst MO 1,140 acres

WHITE RIVER KARST SUBSECTION

Small karst area in the rugged hills of the upper White River basin with small springs and subterranean aquatic systems host to endemic species. Non-point source pollution from commercial logging equipment threatens the site.

Threat Rank - Medium

Community Targets

Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
STYGOBROMUS OZARKENSIS	OZARK CAVE AMPHIPOD	G3G4	OZ	Invertebrate-Amphipod

Managed Areas

Area Name	Owner
Mark Twain National Forest	USDA Forest Service

724 Little Flat Creek Karst MO 1,200 acres

SPRINGFIELD KARST SUBSECTION

Small subterranean limestone cave stream system in the Springfield Plain; provides critical habitat for the imperiled and Federally Listed Ozark Cavefish and Bristly Cave Crayfish. Much of the uplands feeding water into this area are grazed pastures and developing rural residential areas that threaten water quality.

Threat Rank - Medium

Community Targets

Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLYOPSIS ROSAE	OZARK CAVEFISH	G2G3	OZ	Fish
CAMBARUS SETOSUS	BRISTLY CAVE CRAYFISH	G2	OZ	Invertebrate-Crayfish

725 Neosho Karst MO 8,270 acres

SPRINGFIELD KARST SUBSECTION

Small subterranean limestone cave stream system in the Springfield Plain; provides critical habitat for the imperiled and Federally Listed Ozark Cavefish and Bristly Cave Crayfish. Much of the uplands feeding water into this area are grazed pastures and developing rural residential areas that threaten water quality.

Threat Rank - High

Primary stresses - habitat disturbance
- habitat destruction

Community Targets

Cave-Aquatic

Spring System

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLYOPSIS ROSAE	OZARK CAVEFISH	G2G3	OZ	Fish
CAMBARUS SETOSUS-2	BRISTLY CAVE CRAYFISH	G2	OZ	Invertebrate-Crayfish

Managed Areas

Area Name	Owner
Fort Crowder Conservation Area	Missouri Department of Conservation

726 Bella Vista Karst AR 5,660 acres

SPRINGFIELD KARST SUBSECTION

Area of karst upland in the upper Elk River basin with significant subterranean aquatic habitat for endemic species including one of only two known locations for Federally Listed Troglobitic Crayfish. Residential development and point source pollution in the uplands of the karst area highly threaten the habitat.

Threat Rank - High

Primary stresses
- nutrient loading
- habitat disturbance
- habitat destruction

Community Targets

Cave-Aquatic-2

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
STYGOBROMUS OZARKENSIS-2	OZARK CAVE AMPHIPOD	G3G4	OZ	Invertebrate-Amphipod
CAMBARUS ACULABRUM	TROGLOBITIC CRAYFISH	G1	OZ	Invertebrate-Crayfish
CAECIDOTEA ANCYLA-2	ISOPOD	G2G3	OZ	Invertebrate-Isopod

Managed Areas

Area Name	Owner
Bear Hollow Cave	The Nature Conservancy

727 Caney Mountain Karst MO 1,740 acres

WHITE RIVER KARST SUBSECTION

Small area of karst within the rugged Caney Mountain Conservation Area of the North Fork White River basin. The Caney Mountain Cave Crayfish is globally restricted to this area.

Threat Rank - Medium

Community Targets

Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
ORCONECTES STYGOCANEYI	CANEY MOUNTAIN CAVE CRAYFISH	G?	OZ	Invertebrate-Crayfish

Managed Areas

Area Name	Owner
Caney Mountain Conservation Area	Missouri Department of Conservation

728 Tumbling Creek Karst MO 8,780 acres

WHITE RIVER KARST SUBSECTION

Small subterranean aquatic system including Tumbling Creek Cave, home of the Ozark Underground Laboratory, and host to numerous endemic and imperiled species and the only known population of the Tumbling Creek Cavesnail *Antrobia culveri*. Threats include water pollution in the recharge area and increased sediment loads in the cave streams from inappropriate land use practices.

Threat Rank - Low

Community Targets

Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	OZ	Amphibian
STYGOBROMUS ONONDAGAENSIS	ONONDAGA CAVE AMPHIPOD	G1	OZ	Invertebrate-Amphipod
STYGOBROMUS OZARKENSIS	OZARK CAVE AMPHIPOD	G3G4	OZ	Invertebrate-Amphipod
SCOTERPES DENDROPUS	CAVE MILLIPEDE	G?	OZ	Invertebrate-Other
ANTROBIA CULVERI	TUMBLING CREEK CAVESNAIL	G1	OZ	Invertebrate-Snail
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Tumbling Creek Cave	Ozark Underground Lab
Bull Shoals Reservoir	US Army Corps of Engineers
Mark Twain National Forest	USDA Forest Service

729 Eleven Point Karst MO 98,000 acres

SALEM PLATEAU KARST SUBSECTION

Extensive karst area along the upper Eleven Point River basin with numerous subterranean aquatic stream systems with restricted and endemic species; provides critical habitat for Federally Listed Indiana and Gray bats. Inappropriately timed recreational caving and groundwater pollution threatens the site.

Threat Rank - Medium

Community Targets

Cave-2

Cave

Cave-Aquatic-7

Spring System

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS-7	GROTTO SALAMANDER	G4	OZ	Amphibian
BACTRURUS PSEUDOMUCRONATUS-3	CAVE AMPHIPOD	--	OZ	Invertebrate-Amphipod
STYGOBROMUS ONONDAGAENSIS-2	ONONDAGA CAVE AMPHIPOD	G1	OZ	Invertebrate-Amphipod
CAMBARUS HUBRICHTI-2	SALEM CAVE CRAYFISH	G2	OZ	Invertebrate-Crayfish
CAECIDOTEA ANTRICOLA-8	ISOPOD	G3G4	OZ	Invertebrate-Isopod
CAECIDOTEA SALAMENSIS-2	ISOPOD	G?	OZ	Invertebrate-Isopod
ISLANDIANA SPEOPHILA-2	CAVERN SHEET-WEB SPIDER	G1	R	Invertebrate-Other
SCOTERPES DENDROPUS	CAVE MILLIPEDE	G?	OZ	Invertebrate-Other
FONTIGENS ALDRIICHI-3	HOOSIER AMNICOLA	G3G4	MOD	Invertebrate-Snail
MYOTIS GRISESCENS-4	GRAY BAT	G3	MOD	Mammal

Managed Areas

Area Name	Owner
Mark Twain National Forest	USDA Forest Service

730 Upper Current Karst MO 57,000 acres

SALEM PLATEAU KARST SUBSECTION

Extensive karst area in the upper Current River basin with numerous large springs, caves, and subterranean aquatic habitat host to numerous endemic species including the largest population of Salem Cave Crayfish *Cambarus hubrichti*; provides critical habitat for Federally Listed Indiana and Gray bats. Groundwater pollution from rural residential development and conversion of steep slopes from woodland tree cover to cool season pasture threatens the sites. Inappropriately timed recreational caving also threatens cave habitat and bats.

Threat Rank - Medium

Community Targets

Cave-2

Cave-Aquatic-2

Spring System

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	OZ	Amphibian
CAMBARUS HUBRICHTI-3	SALEM CAVE CRAYFISH	G2	OZ	Invertebrate-Crayfish
CAECIDOTEA ANTRICOLA	ISOPOD	G3G4	OZ	Invertebrate-Isopod
CAECIDOTEA SALAMENSIS	ISOPOD	G?	OZ	Invertebrate-Isopod
MYOTIS GRISESCENS-2	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Cedar Grove Conservation Area	Missouri Department of Conservation
Sunkland Conservation Area	Missouri Department of Conservation
Montauk State Park	Missouri Department of Natural Resources
Bat Cave	The Nature Conservancy
Ozark National Scenic Riverways	US National Park Service

731 Powder Mill Karst MO 10,500 acres

SALEM PLATEAU KARST SUBSECTION

Small area of Karst in the dissected hills of the Current River basin with numerous small springs and cave systems and the astoundingly clear medium sized spring, Blue Spring, hosting numerous endemic species.

Threat Rank - Medium

Community Targets

Cave-Aquatic

Spring System

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	OZ	Amphibian
BACTRURUS PSEUDOMUCRONATUS	CAVE AMPHIPOD	--	OZ	Invertebrate-Amphipod
FONTIGENS ALDRIICHI	HOOSIER AMNICOLA	G3G4	MOD	Invertebrate-Snail

Managed Areas

Area Name	Owner
Current River Conservation Area	Missouri Department of Conservation
Rocky Creek Conservation Area	Missouri Department of Conservation
Ozark National Scenic Riverways	US National Park Service

732 Big Spring Karst MO 77,900 acres

SALEM PLATEAU KARST SUBSECTION

Area of small springs and cave stream systems within the local recharge area for Big Spring, the largest spring in the central US.

Threat Rank - Medium

Community Targets

Cave-Aquatic-5

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
BACTRURUS PSEUDOMUCRONATUS-2	CAVE AMPHIPOD	--	OZ	Invertebrate-Amphipod
CAMBARUS HUBRICHTI-3	SALEM CAVE CRAYFISH	G2	OZ	Invertebrate-Crayfish
CAECIDOTEA ANTRICOLA	ISOPOD	G3G4	OZ	Invertebrate-Isopod
FONTIGENS ALDRIICHI	HOOSIER AMNICOLA	G3G4	MOD	Invertebrate-Snail

Managed Areas

Area Name	Owner
Ozark National Scenic Riverways	US National Park Service
Mark Twain National Forest	USDA Forest Service

733 Unimin Mines IL 5,370 acres

EASTERN BORDER KARST SUBSECTION

Largest abandoned underground silica mine in the State of Illinois and currently supports more than 25,000 wintering Indiana bats (*Myotis sodalis*). The UNIMIN Corporation has partnered with Bat Conservation International (BCI), Illinois Department of Natural Resources (IDNR), Southern Illinois University, U.S. Fish & Wildlife Service and USDA Forest Service to protect this Federal Priority II hibernacula. Five species of bats are known to use this area including the big brown bat, little brown bat, Indiana bat, northern long-eared bat and the eastern pipstrelle.

Threat Rank - Low

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Shawnee National Forest	USDA Forest Service

734 Batesville Karst AR 44,100 acres

WHITE RIVER KARST SUBSECTION

Karst area in upland hills along the lower White River near Batesville, Arkansas. Includes important cave hibernacula for Gray and Indiana bats as well as cave stream systems with the only known occurrence of the Foushee Cave Snail.

Threat Rank - Medium

Community Targets

Cave-2

Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAECIDOTEA ANTRICOLA	ISOPOD	G3G4	OZ	Invertebrate-Isopod
AMNICOLA CORA	FOUSHEE CAVESNAIL	G1	OZ	Invertebrate-Snail
MYOTIS GRISESCENS-2	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

735 Blanchard Springs Karst AR 55,300 acres

WHITE RIVER KARST SUBSECTION

Extensive karst area in the hills of the middle White River, including the USDA Forest Service tour cave Blanchard Springs Caverns as well as numerous other caves and subterranean aquatic habitat; provides critical habitat for Federally Listed Gray and Indiana bats. The Hell Creek Cave Crayfish is globally restricted to this area. Threats include non-point source pollution and inappropriately timed recreational caving.

Threat Rank - Medium

Community Targets

Cave-4

Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAMBARUS ZOPHONASTES	HELL CREEK CAVE CRAYFISH	G1	OZ	Invertebrate-Crayfish
CAECIDOTEA ANTRICOLA-2	ISOPOD	G3G4	OZ	Invertebrate-Isopod
APOCHTHONIUS TITANICUS	CAVE PSEUDOSCORPION	G1G2	OZ	Invertebrate-Other
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS-3	INDIANA BAT	G2	R	Mammal
PLAGIOCHILA ACANTHOPHYLLA	LIVERWORT	GUT1	OZ	Plant-Liverwort

Managed Areas

Area Name	Owner
Hell Creek	Arkansas Natural Heritage Commission
Old Mill State Park	Arkansas State Parks
Ozark National Forest	USDA Forest Service

736 Dodd City Karst AR 15,100 acres

WHITE RIVER KARST SUBSECTION

Karst area in the dissected hills south of Bull Shoals Lake; provides significant habitat for the endemic and imperiled Ozark Big-Eared bats as well as critical habitat for Federally Listed Indiana and Gray bats. Inappropriately timed recreational caving threatens the site.

Threat Rank - High

Primary stresses - habitat disturbance
- habitat destruction

Community Targets

Cave-2

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAECIDOTEA ANTRICOLA	ISOPOD	G3G4	OZ	Invertebrate-Isopod
CORYNORHINUS TOWNSEDII INGENS-2	OZARK BIG-EARED BAT	G4T1	OZ	Mammal
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Slippery Hollow	Arkansas Natural Heritage Commission
Blue Heaven	The Nature Conservancy

737 Buffalo City Karst AR 2,970 acres

WHITE RIVER KARST SUBSECTION

Small karst area along the middle White River; provides critical habitat for Federally Listed Gray Bats. Disturbance from recreational caving is a threat.

Threat Rank - Medium

Community Targets
Cave

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal

Managed Areas

Area Name	Owner
Ozark National Forest	USDA Forest Service

738 Freck Karst AR 1,360 acres

WHITE RIVER KARST SUBSECTION

Small karst area in the dissected hills of the lower Buffalo River basin; provides critical habitat for Federally Listed Indiana and Gray bats. Inappropriately timed recreational caving threatens the site.

Threat Rank - High
Primary stresses - habitat disturbance
- habitat destruction

Community Targets
Cave

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAECIDOTEA DIMORPHA	ISOPOD	G1G3	OZ	Invertebrate-Isopod
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

739 War Eagle Karst AR 4,440 acres

WHITE RIVER KARST SUBSECTION

Small karst area including the commercial tour cave War Eagle Cavern in the upper White River basin along Beaver Lake hosting subterranean aquatic habitat with several endemic or restricted species, including the Federally Listed Ozark Cavefish *Amblyopsis rosae*. Cave habitat hosts Federally Listed Gray and Indiana bats.

Threat Rank - Medium

Community Targets
Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLYOPSIS ROSAE	OZARK CAVEFISH	G2G3	OZ	Fish
CAECIDOTEA STILADACTYLA	ISOPOD	G2G3	OZ	Invertebrate-Isopod
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Beaver Lake State Park	Arkansas State Park

740 Buffalo River Karst AR 180,000 acres

WHITE RIVER KARST SUBSECTION

Extensive karst area in the upper Buffalo River basin; provides critical cave habitat for Federally Listed Gray and Indiana bats and subterranean aquatic habitat for numerous endemic species. The cave harvestman *Crosbyella distincta* is globally restricted to this area and the cave pseudoscorpion *Apocthonius typhlus* is restricted to only this and one other Ozark karst area.

Threat Rank - Medium

Community Targets

Cave-5

Cave-Aquatic-2

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLYOPSIS ROSAE	OZARK CAVEFISH	G2G3	OZ	Fish
STYGOBROMUS OZARKENSIS-2	OZARK CAVE AMPHIPOD	G3G4	OZ	Invertebrate-Amphipod
CAECIDOTEA ANCYLA	ISOPOD	G2G3	OZ	Invertebrate-Isopod
CAECIDOTEA ANTRICOLA-4	ISOPOD	G3G4	OZ	Invertebrate-Isopod
CAECIDOTEA STILADACTYLA-2	ISOPOD	G2G3	OZ	Invertebrate-Isopod
APOCHTHONIUS TYPHLUS	CAVE PSEUDOSCORPION	G1G2	OZ	Invertebrate-Other
CROSBYELLA DISTINCTA	CAVE HARVESTMAN	G1G2	OZ	Invertebrate-Other
MYOTIS GRISESCENS-4	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS-5	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Gene Rush/ Buffalo River Wildlife Management Area	Arkansas Game & Fish Commission
Buffalo National River	US National Park Service
Ozark National Forest	USDA Forest Service

741 Withrow Springs Karst AR 3,160 acres

WHITE RIVER KARST SUBSECTION

Small karst area around Withrow Springs State Park in the hills of the upper White River basin with subterranean aquatic habitat host to numerous endemic species. Inappropriate recreational caving threatens cave habitat and groundwater pollution from residential development threatens subterranean aquatic systems.

Threat Rank - High

Primary stresses - nutrient loading

- habitat disturbance

Community Targets

Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
STYGOBROMUS OZARKENSIS	OZARK CAVE AMPHIPOD	G3G4	OZ	Invertebrate-Amphipod
CAECIDOTEA ANCYLA	ISOPOD	G2G3	OZ	Invertebrate-Isopod
CAECIDOTEA STEEVESI	ISOPOD	G2G4	OZ	Invertebrate-Isopod
CAECIDOTEA STILADACTYLA	ISOPOD	G2G3	OZ	Invertebrate-Isopod

Managed Areas

Area Name	Owner
Withrow Spring State Park	Arkansas State Park

742 Black Oak Karst AR 2,450 acres

WHITE RIVER KARST SUBSECTION

Small karst area in the rugged hills southeast of Fayetteville, Arkansas with a mixture of woodland and grazed pasture in the surface area; provides significant habitat for endemic and imperiled Ozark Big-Eared Bats.

Threat Rank - Medium

Community Targets

Cave

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
PSEUDOSINELLA DUBIA	A SPRINGTAIL	G1G2	R	Invertebrate-Insect
TRIGENOTYLA PARCA	CAVE MILLIPEDE	G1G2	OZ	Invertebrate-Other

743 Cave Springs Karst AR 44,400 acres

SPRINGFIELD KARST SUBSECTION

Rolling karst area west of Springdale, Arkansas with significant subterranean aquatic habitat and numerous endemic species. The Federally protected Logan Cave is one of only two known sites for the Troglobitic Crayfish. The state owned Cave Spring Cave is one of the best locations for the endemic and imperiled Ozark Cavefish. Extensive portions of the cave stream systems extend for miles in the subsurface beyond the small protected areas near the entrances of these cave systems. Much of the uplands feeding water into this area are grazed pastures and developing rural residential areas that threaten water quality.

Threat Rank – Very High

Primary stresses - nutrient loading
- habitat disturbance
- habitat destruction

Community Targets

Cave-Aquatic-2

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLYOPSIS ROSAE-2	OZARK CAVEFISH	G2G3	OZ	Fish
STYGOBROMUS OZARKENSIS-2	OZARK CAVE AMPHIPOD	G3G4	OZ	Invertebrate-Amphipod
CAMBARUS ACULABRUM	TROGLOBITIC CRAYFISH	G1	OZ	Invertebrate-Crayfish
CAECIDOTEA ANTRICOLA	ISOPOD	G3G4	OZ	Invertebrate-Isopod
CAECIDOTEA STILADACTYLA	ISOPOD	G2G3	OZ	Invertebrate-Isopod
MYOTIS GRISESCENS-2	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS-2	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Cave Spring Cave	Arkansas Natural Heritage Commission
Logan Cave	US Fish & Wildlife Service

744 Devils Den Karst AR 5,090 acres

WHITE RIVER KARST SUBSECTION

Small karst area in the Boston Mountains in the upper portion of the Lee Creek basin in Devil's Den State Park; provides significant habitat for endemic species such as the Ozark Big-Eared Bat and Indiana Bat.

Threat Rank - High

Primary stresses - habitat disturbance

Community Targets

Cave

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
PSEUDOSINELLA DUBIA	A SPRINGTAIL	G1G2	R	Invertebrate-Insect
TRIGENOTYLA PARCA	CAVE MILLIPEDE	G1G2	OZ	Invertebrate-Other
CORYNORHINUS TOWNSEDII INGENS	OZARK BIG-EARED BAT	G4T1	OZ	Mammal
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Devil's Den State Park	Arkansas State Park
Ozark National Forest	USDA Forest Service

745 Bentonville Karst AR 4,530 acres

SPRINGFIELD KARST SUBSECTION

Rolling upland karst area northwest of Bentonville, Arkansas with cave stream habitat for several endemic subterranean aquatic species including the blind Ozark Cavefish. Pollution, rapidly developing rural residential areas, and inappropriate cave recreation activities threaten the cave streams.

Threat Rank - High

Primary stresses - toxins/contaminants
- habitat disturbance

Community Targets

Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLYOPSIS ROSAE	OZARK CAVEFISH	G2G3	OZ	Fish
STYGOBROMUS OZARKENSIS	OZARK CAVE AMPHIPOD	G3G4	OZ	Invertebrate-Amphipod
CAECIDOTEA ANTRICOLA	ISOPOD	G3G4	OZ	Invertebrate-Isopod

746 Spavinaw Creek Karst OK 66,000 acres

SPRINGFIELD KARST SUBSECTION

Series of limestone/dolomite caves in the Spavinaw Creek drainage area of the Springfield Plateau terrestrial subsection; provides habitat for Gray Bat maternity colonies, protects rare cave aquatics such as the Ozark cavefish (*Amblyopsis rosae)* and the blind cave crayfish (*Cambarus subterraneus*), and has the only occurrence of the Oklahoma crayfish (*Cambarus tartarus)*. Ozark Big-Eared Bats also use caves in the area. Bat populations in this area are threatened by chronic human intrusion, while cave aquatics may be impacted by nutrification in the recharge areas.

Threat Rank - High

Primary stresses - habitat disturbance
- habitat destruction
- nutrient loading

Community Targets

Cave-Aquatic-3

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLYOPSIS ROSAE-2	OZARK CAVEFISH	G2G3	OZ	Fish
STYGOBROMUS OZARKENSIS	OZARK CAVE AMPHIPOD	G3G4	OZ	Invertebrate-Amphipod
CAMBARUS SUBTERRANEUS	BLIND CAVE CRAYFISH	G1	OZ	Invertebrate-Crayfish
CAMBARUS TARTARUS	OKLAHOMA CRAYFISH	G1	OZ	Invertebrate-Crayfish
CAECIDOTEA STILADACTYLA	ISOPOD	G2G3	OZ	Invertebrate-Isopod
MYOTIS GRISESCENS-2	GRAY BAT	G3	MOD	Mammal

Managed Areas

Area Name	Owner
Eucha Preserve	The Nature Conservancy
Kenwood Indian Reservation	US Bureau of Indian Affairs
Ozark Plateau National Wildlife Refuge	US Fish & Wildlife Service
Spavinaw Hill Wildlife Management Area	Oklahoma Department of Wildlife Conservation

747 Winset Hollow Karst OK 4,800 acres

SPRINGFIELD KARST SUBSECTION

Cave system in the Illinois River drainage of the Springfield Plateau terrestrial subsection that harbors the top-priority Gray Bat maternity colony in Oklahoma, with an estimated past habitation by 10,000 to 15,000 Gray Bats. The cave has a mostly horizontally joint controlled walking passage of approximately 700 feet. The same cave is also used by a bat cave isopod (*Caecidotea oculata*) and a species of planarian (*Dendrocoelopsis americana*), both restricted to only a few caves. The cave is gated, but occurs on private land and, so, is threatened by human intrusion. Threats to cave aquatics at this site include groundwater pollution from poultry and swine operations and residential septic tanks.

Threat Rank - High

Primary stresses
- habitat disturbance
- habitat destruction
- nutrient loading to the stresses

Community Targets

Cave

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CAECIDOTEA OCULATA	ISOPOD	G2G3	OZ	Isopod
DENDROCOELOPSIS AMERICANA	CAVE PLANARIAN	G3G4	OZ	Invertebrate-Other
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal

748 Stilwell Karst OK 110,000 acres

WHITE RIVER KARST SUBSECTION

An extensive system of caves underlying a large forested landscape covering portions of the Lower Boston Mountains and the Springfield Plateau terrestrial subsections. The area is underlain by Boone chert, which is a formation of alternating limestone and flint layers eroded to form steep hills, incised valleys, and prominent bluffs. Much of the drainage is underground, resulting in a number of springs and caves, especially where a sandstone cap is sufficient to support a cave roof. The caves protect significant colonies of Gray Bat and Ozark Big-Eared Bat, as well as other unique cave biota, such as recently discovered, undescribed insect species. Most cave openings are gated, but human intrusion is a chronic problem.

Threat Rank - High

Primary stresses
- habitat disturbance
- habitat destruction

Community Targets

Cave-6

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
CORYNORHINUS TOWNSEDII INGENS-6	OZARK BIG-EARED BAT	G4T1	OZ	Mammal
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal

Managed Areas

Area Name	Owner
Cookson Hills Wildlife Management Area	Oklahoma Department of Wildlife Conservation
Adair State Park	Oklahoma State Park
Charlie-Owl	The Nature Conservancy
Ozark Plateau National Wildlife Refuge	US Fish & Wildlife Service

749 Jay Karst OK 2,610 acres

SPRINGFIELD KARST SUBSECTION

Encompasses a significant cave system in the Springfield Plateau terrestrial subsection that includes 2,410 feet of cave passage with an underground stream, large rooms, breakdown areas, muddy passages, and unique cave formations. The cave is a maternity colony of more than 24,000 Gray Bats. The Ozark Cavefish (*Amblyopsis rosae*) is also found in the cave, although DNA testing has revealed that this population may be of a new species; provides habitat for one of only a few known occurrences of the Blind Cave Crayfish (*Cambarus subterraneus*). The cave lies beneath a sub-development on the Drowning Creek arm of Grand Lake of the Cherokees. Pollution from septic tanks, household chemicals and pesticides, and trash dumps threaten water quality.

Threat Rank - High

Primary stresses
- habitat disturbance
- habitat destruction
- nutrient loading
- toxins/contaminants

Community Targets

Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
AMBLYOPSIS ROSAE	OZARK CAVEFISH	G2G3	OZ	Fish
CAMBARUS SUBTERRANEUS	BLIND CAVE CRAYFISH	G1	OZ	Invertebrate-Crayfish
DENDROCOELOPSIS AMERICANA	CAVE PLANARIAN	G3G4	OZ	Invertebrate-Other
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal
MYOTIS SODALIS	INDIANA BAT	G2	R	Mammal

Managed Areas

Area Name	Owner
Twin Cave	The Nature Conservancy

750 Jacks Fork Karst MO 23,800 acres

SALEM PLATEAU KARST SUBSECTION

Extensive karst area along the Jacks Fork River with numerous caves and spring systems. Alley Spring is the largest spring system in the area, host to numerous endemic species, including the only known location for the imperiled Isopod *Caecidotea serrata*. Non-point source groundwater pollution from cattle grazing, illegal trash dumping in sinkholes and along ridgetop trails, and rural residential development threaten the area.

Threat Rank - Medium

Community Targets

Cave-Aquatic-2

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
BACTRURUS PSEUDOMUCRONATUS	CAVE AMPHIPOD	--	OZ	Invertebrate-Amphipod
STYGOBROMUS ONONDAGAENSIS	ONONDAGA CAVE AMPHIPOD	G1	OZ	Invertebrate-Amphipod
CAECIDOTEA ANCYLA	ISOPOD	G2G3	OZ	Invertebrate-Isopod
CAECIDOTEA SALAMENSIS	ISOPOD	G?	OZ	Invertebrate-Isopod
CAECIDOTEA SERRATA	ISOPOD	G1G2	OZ	Invertebrate-Isopod

Managed Areas

Area Name	Owner
Angeline Conservation Area	Missouri Department of Conservation
Ozark National Scenic Riverways	US National Park Service

751 Beal Karst MO 1,010 acres

SALEM PLATEAU KARST SUBSECTION

Small karst area in Eminence dolomite in the dissected hills adjacent to the Current River; provides subterranean aquatic habitat for a cave amphipod endemic to the Current and Eleven Point river basins. Most of the uplands above the cave are state forest lands with active timber management. Non-point source pollution from timbering equipment could locally threaten water quality.

Threat Rank - Medium

Community Targets
Cave-Aquatic

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
BACTRURUS PSEUDOMUCRONATUS	CAVE AMPHIPOD	--	OZ	Invertebrate-Amphipod

Managed Areas

Area Name	Owner
Current River Conservation Area	Missouri Department of Conservation
Ozark National Scenic Riverways	US National Park Service

752 Bryant Creek Karst MO 3,090 acres

WHITE RIVER KARST SUBSECTION

Small karst area along the lower Bryant Creek; provides critical habitat for Federally Listed Gray Bats. Disturbance from recreational caving is a threat.

Threat Rank - High
Primary stresses - habitat disturbance
- habitat destruction

Community Targets
Cave

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	OZ	Amphibian
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal

753 Coffin Cave CA MO 995 acres

SALEM PLATEAU KARST SUBSECTION

Small karst area along the Niangua River; provides critical protected habitat for Federally Listed Gray Bats.

Threat Rank - Medium

Community Targets
Cave

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal

Managed Areas

Area Name	Owner
Coffin Cave Conservation Area	Missouri Department of Conservation

754 LaRue Pine Hills Research Natural Area Spring IL 363 acres

EASTERN BORDER KARST SUBSECTION

Part of the Shawnee National Forest in southern Illinois and recognized for rugged topography and massive exposures of limestone bedrock that form sheer bluffs (350 ft) overlooking the Mississippi River floodplain. The Research Natural Area contains a mix of high quality natural communities including dry to mesic forests, swamps, ponds, limestone cliffs, and springs.

Threat Rank - High

Primary stresses - invasive species

Community Targets

Spring System

Managed Areas

Area Name	Owner
Shawnee National Forest	USDA Forest Service

755 Rockwoods Spring MO 96 acres

EASTERN BORDER KARST SUBSECTION

Small spring system in the steep hills of western St. Louis County in Rockwoods Reservation hosts the only known population of the globally imperiled Proserpine Cavesnail *Fontigens proserpina*. Groundwater pollution from nearby residential development threatens the site.

Threat Rank - Medium

Community Targets

Spring System

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
FONTIGENS PROSERPINA	PROSERPINE CAVESNAIL	G1	R	Invertebrate-Snail

Managed Areas

Area Name	Owner
Rockwoods Reservation	Missouri Department of Conservation

756 Meramec Spring MO 20,400 Acres

SALEM PLATEAU KARST SUBSECTION

Large Ozark spring issuing into a commercial trout park spring run operated by the James Foundation in the upper Meramec River basin. The subterranean aquatic system is host to several endemic and imperiled species. Pollution from pipelines, cattle grazing, illegal trash dumping, and rural residential development threatens this site.

Threat Rank - Medium

Community Targets

Spring System

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
ALLOCRANGONYX HUBRICHTI	CENTRAL MISSOURI CAVE AMPHIPOD	G1G3	OZ	Invertebrate-Amphipod
CAMBARUS HUBRICHTI	SALEM CAVE CRAYFISH	G2	OZ	Invertebrate-Crayfish
GLYPHOPSYCHE MISSOURI	MISSOURI GLYPHOPSYCHE CADDISFLY	G1G3	OZ	Invertebrate-Insect
FONTIGENS ALDRIICHI	HOOSIER AMNICOLA	G3G4	MOD	Invertebrate-Snail

Managed Areas

Area Name	Owner
Meramec Spring Conservation Area	James Foundation

757 Salt Spring MO 340 acres

NORTHERN BORDER KARST SUBSECTION

Small saline spring system in the hills north of the Missouri River at Booneslick State Historic Site. Rural residential development in the watershed threatens water quality at the site.

Threat Rank - High

Primary stresses - habitat disturbance
- habitat destruction

Community Targets

Spring System

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
PENTACORA SIGNORETI	SHORE BUG	G?	OZ	Invertebrate-Insect

Managed Areas

Area Name	Owner
Booneslick State Historic Site	Missouri Department of Natural Resources

758 Blackwater Spring MO 2,630 acres

NORTHERN BORDER KARST SUBSECTION

Small saline spring along the Backwater River with an unusual occurrence of a shore bug endemic to the local area. Much of the uplands above the small spring are a mix of row-crop agriculture and grazed cool season pasture.

Threat Rank - High

Primary stresses - habitat disturbance
- habitat destruction

Community Targets

Spring System

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
PENTACORA SIGNORETI	SHORE BUG	G?	OZ	Invertebrate-Insect

759 Marvel Cave MO 84 acres

WHITE RIVER KARST SUBSECTION

Small commercial tour cave at Silver Dollar City, Missouri; provides habitat for several endemic species and Federally Listed Gray Bats.

Threat Rank - Medium

Community Targets

Cave

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	OZ	Amphibian
STYGOBROMUS OZARKENSIS	OZARK CAVE AMPHIPOD	G3G4	OZ	Invertebrate-Amphipod
SCOTERPES DENDROPUS	CAVE MILLIPEDE	G?	OZ	Invertebrate-Other
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal

760 Bearden Hollow Karst MO 856 acres

WHITE RIVER KARST SUBSECTION

Small karst area in the hills north of Table Rock Lake in the upper White River basin; provides critical habitat for Federally Listed Gray Bats.

Threat Rank - High

Primary stresses - habitat disturbance
- habitat destruction

Community Targets

Cave

Species Targets

Scientific Name	Common Name	Global Rank	Target Class	Taxa Type
TYPHLOTRITON SPELAEUS	GROTTO SALAMANDER	G4	OZ	Amphibian
MYOTIS GRISESCENS	GRAY BAT	G3	MOD	Mammal

Appendix 5. Target Occurrence Data

This appendix provides a list of terrestrial community(A), karst community(B), aquatic community(C) and species targets(D), and the portfolio sites in which they occur. The number listed with the community targets refers to the identification number given with the targets in Appendix 1B. The number listed with the species targets is the Heritage Program Global Element Code (GELCODE). The species targets are listed alphabetically; for a list by taxa see appendix 1A. The portfolio site number and names are listed for each occurrence as well as the ecoregional subsection(s) (see figs. 2,3 and 4) and state(s) where the site occurs.

Appendix 5A. List of Portfolio Sites by *Terrestrial Community* Target

104 Acid Deciduous Woodland Complex

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
132	Cookson Hills	1	OK
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
144	Caney Hills	3	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
149	Truman Savanna	8	MO
150	Big Piney Hills	9	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
155	White Ranch	7	ARMO
156	Poplar Bluff Pinery	19	MO
157	Mud Creek	19	MO
159	Mudlick Mountain	12	MO
160	Cherokee-Gruber	5	OK
161	Garret Hollow	5	AR
162	Rock Pile Mountain	12	MO
164	Pump Hollow	19	MO
413	Lichen Glade	8	MO
417	St. Joe	12	MO
420	Coonville Creek	12	MO
426	Buzzard's Bluff	8	MO

139 Acid Seep

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
132	Cookson Hills	1	OK
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
145	North Fork Hills	3	MO
159	Mudlick Mountain	12	MO
164	Pump Hollow	19	MO
408	Wildcat Glade Complex	2	MO

148 Acid Upland Prairie

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK
140	Lamar LCA	2	MO
155	White Ranch	7	ARMO
404	Lindsey Prairie	1	AR
411	Baker Prairie	1	AR
415	Hite Prairie	16	MO
423	Rockhill Prairie	8	MO
424	Warren Prairie	2	MO
429	Mount Vernon Prairie	2	MO

118 Alder Thicket

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
139	Pickle Creek Complex	13	MO
141	Roaring River	3	ARMO
150	Big Piney Hills	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
159	Mudlick Mountain	12	MO
161	Garret Hollow	5	AR
162	Rock Pile Mountain	12	MO
420	Coonville Creek	12	MO

107 Ashe Juniper Woodland

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
141	Roaring River	3	ARMO
145	North Fork Hills	3	MO

119 Cane Break

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
134	Current River LCA	7,11,19	MO
145	North Fork Hills	3	MO
153	Harold Alexander	7	AR

132 Carbonate Rock Wash

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
132	Cookson Hills	1	OK
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
144	Caney Hills	3	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
149	Truman Savanna	8	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
155	White Ranch	7	ARMO
161	Garret Hollow	5	AR
163	Jefferson County Glades	14	MO
420	Coonville Creek	12	MO

158 Carbonate Talus

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
155	White Ranch	7	ARMO
408	Wildcat Glade Complex	2	MO
420	Coonville Creek	12	MO

146 Carbonate Upland Prairie

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO
140	Lamar LCA	2	MO
422	LaPetite Gemme Prairie	2	MO
423	Rockhill Prairie	8	MO

155 Chert Glade Complex

Site Number	Site Name	Subsection	State
131	Sylamore	1,3	AR
408	Wildcat Glade Complex	2	MO

153 Dolomite Glade Complex

Site Number	Site Name	Subsection	State
131	Sylamore	1,3	AR
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
139	Pickle Creek Complex	13	MO
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
144	Caney Hills	3	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
149	Truman Savanna	8	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
155	White Ranch	7	ARMO
163	Jefferson County Glades	14	MO
400	Aux Vasse Glade	14	MO
417	St. Joe	12	MO
420	Coonville Creek	12	MO

160 Dry Carbonate Cliff

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
138	Fults Hill Prairie Complex	15	IL
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
155	White Ranch	7	ARMO
161	Garret Hollow	5	AR
408	Wildcat Glade Complex	2	MO
420	Coonville Creek	12	MO

163 Dry Siliceous Cliff

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
132	Cookson Hills	1	OK
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
145	North Fork Hills	3	MO
150	Big Piney Hills	9	MO
159	Mudlick Mountain	12	MO
162	Rock Pile Mountain	12	MO
408	Wildcat Glade Complex	2	MO
413	Lichen Glade	8	MO
426	Buzzard's Bluff	8	MO

147 Eastern Loess Hill Prairie

Site Number	Site Name	Subsection	State
136	LaRue/Trail of Tears	14,15,18	ILMO
138	Fults Hill Prairie Complex	15	IL
425	Bonne Femme Hill	14	MO

130 Floodplain Marsh

Site Number	Site Name	Subsection	State
136	LaRue/Trail of Tears	14,15,18	ILMO

138 Forested Fen

Site Number	Site Name	Subsection	State
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
153	Harold Alexander	7	AR

131 Freshwater Marsh

Site Number	Site Name	Subsection	State
136	LaRue/Trail of Tears	14,15,18	ILMO
145	North Fork Hills	3	MO
155	White Ranch	7	ARMO

149 Hardpan Prairie

Site Number	Site Name	Subsection	State
140	Lamar LCA	2	MO
422	LaPetite Gemme Prairie	2	MO

105 High-Base Deciduous Woodland Complex

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
132	Cookson Hills	1	OK
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
141	Roaring River	3	ARMO
143	Ava Glades	3	MO
144	Caney Hills	3	MO
148	Big Sugar Creek	4	MO
149	Truman Savanna	8	MO
150	Big Piney Hills	9	MO
152	Meramec Hills	10	MO
156	Poplar Bluff Pinery	19	MO
159	Mudlick Mountain	12	MO
161	Garret Hollow	5	AR
163	Jefferson County Glades	14	MO
417	St. Joe	12	MO
420	Coonville Creek	12	MO

115 Hydric Flatwoods

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO
136	LaRue/Trail of Tears	14,15,18	ILMO

151 Igneous Glade Complex

Site Number	Site Name	Subsection	State
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
159	Mudlick Mountain	12	MO
162	Rock Pile Mountain	12	MO

157 Igneous Talus

Site Number	Site Name	Subsection	State
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
159	Mudlick Mountain	12	MO
162	Rock Pile Mountain	12	MO

128 Large River Mud Flat

Site Number	Site Name	Subsection	State
136	LaRue/Trail of Tears	14,15,18	ILMO
414	Pelican Island	17	MO

114 Large River Riparian Woodland Complex

Site Number	Site Name	Subsection	State
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
414	Pelican Island	17	MO

127 Large River Sand Flat

Site Number	Site Name	Subsection	State
136	LaRue/Trail of Tears	14,15,18	ILMO
414	Pelican Island	17	MO

152 Limestone Glade Complex

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
138	Fults Hill Prairie Complex	15	IL
141	Roaring River	3	ARMO
148	Big Sugar Creek	4	MO
205	Greenfield Glade	2	MO
206	Wilson's Creek	2	MO
207	Bois D'Arc	2	MO
208	Two Horse Glade	2	MO
209	Roberts Field	2	MO
210	Clear Creek Glade	2	MO
211	Phenix Glade	2	MO
212	Rocky Barrens	2	MO
213	Highway O Glade	2	MO
214	Pertuche Glade	2	MO
425	Bonne Femme Hill	14	MO

123 Lotic Shoal

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR

142 Mesic Prairie

Site Number	Site Name	Subsection	State
137	Central Missouri Hills	14	MO
140	Lamar LCA	2	MO
155	White Ranch	7	ARMO
401	Poag Railroad Prairie	18	IL
404	Lindsey Prairie	1	AR
421	Tree Farm Prairie	2	MO

145 Mesic Sand Prairie

Site Number	Site Name	Subsection	State
136	LaRue/Trail of Tears	14,15,18	ILMO
401	Poag Railroad Prairie	18	IL

113 Mesophytic Bottomland Woodland Complex

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
132	Cookson Hills	1	OK
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
157	Mud Creek	19	MO
159	Mudlick Mountain	12	MO
162	Rock Pile Mountain	12	MO
163	Jefferson County Glades	14	MO
408	Wildcat Glade Complex	2	MO
413	Lichen Glade	8	MO
420	Coonville Creek	12	MO

110 Mesophytic Deciduous Woodland Complex

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
132	Cookson Hills	1	OK
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
141	Roaring River	3	ARMO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
156	Poplar Bluff Pinery	19	MO
159	Mudlick Mountain	12	MO
160	Cherokee-Gruber	5	OK
161	Garret Hollow	5	AR
162	Rock Pile Mountain	12	MO
420	Coonville Creek	12	MO

111 Mesophytic Deciduous Woodland Complex - Bee

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO

161 Moist Carbonate Cliff

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
155	White Ranch	7	ARMO
161	Garret Hollow	5	AR
408	Wildcat Glade Complex	2	MO
420	Coonville Creek	12	MO

162 Moist Siliceous Cliff

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
132	Cookson Hills	1	OK
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
145	North Fork Hills	3	MO
150	Big Piney Hills	9	MO
159	Mudlick Mountain	12	MO
162	Rock Pile Mountain	12	MO
408	Wildcat Glade Complex	2	MO
413	Lichen Glade	8	MO
426	Buzzard's Bluff	8	MO

117 Overcup Pond Forest

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR

141 Ozark Fen Complex

Site Number	Site Name	Subsection	State
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
145	North Fork Hills	3	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
155	White Ranch	7	ARMO
156	Poplar Bluff Pinery	19	MO
412	Little Proctor Creek Fen	8	MO
420	Coonville Creek	12	MO

121 Ozark Gravel Bar

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
132	Cookson Hills	1	OK
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
141	Roaring River	3	ARMO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
156	Poplar Bluff Pinery	19	MO
159	Mudlick Mountain	12	MO
161	Garret Hollow	5	AR
162	Rock Pile Mountain	12	MO

112 Ozark Riparian Woodland Complex

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
139	Pickle Creek Complex	13	MO
143	Ava Glades	3	MO
145	North Fork Hills	3	MO
150	Big Piney Hills	9	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
156	Poplar Bluff Pinery	19	MO
157	Mud Creek	19	MO
159	Mudlick Mountain	12	MO
161	Garret Hollow	5	AR
162	Rock Pile Mountain	12	MO
420	Coonville Creek	12	MO

106 Pine-Oak Woodland Complex

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
132	Cookson Hills	1	OK
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
139	Pickle Creek Complex	13	MO
144	Caney Hills	3	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
159	Mudlick Mountain	12	MO
160	Cherokee-Gruber	5	OK
161	Garret Hollow	5	AR
162	Rock Pile Mountain	12	MO
164	Pump Hollow	19	MO

136 Pond Swamp

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO
416	Ash Pond	7	MO

144 Prairie Fen

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO
145	North Fork Hills	3	MO
155	White Ranch	7	ARMO

120 Riverine Sand/Mud Bar

Site Number	Site Name	Subsection	State
136	LaRue/Trail of Tears	14,15,18	ILMO

108 Rock Chestnut Oak Woodland

Site Number	Site Name	Subsection	State
136	LaRue/Trail of Tears	14,15,18	ILMO

154 Sandstone Glade Complex

Site Number	Site Name	Subsection	State
131	Sylamore	1,3	AR
132	Cookson Hills	1	OK
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
151	Kaintuck Hollow	9	MO
161	Garret Hollow	5	AR
215	Corry Branch Glade	2	MO
216	Corry Flatrocks	2	MO
217	Rice Glade	2	MO
218	Eudora Glade	2	MO
219	Maze Creek Powerline	2	MO
220	Carmack Branch Glade	2	MO
221	Maze Creek	2	MO
222	Bona Glade	2	MO
223	Flint Hill Glades	2	MO
413	Lichen Glade	8	MO
426	Buzzard's Bluff	8	MO

159 Sandstone Talus

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
145	North Fork Hills	3	MO
426	Buzzard's Bluff	8	MO

156 Shale Glade, Acid Subtype

Site Number	Site Name	Subsection	State
136	LaRue/Trail of Tears	14,15,18	ILMO

103 Shortleaf Pinery Complex

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
132	Cookson Hills	1	OK
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
139	Pickle Creek Complex	13	MO
145	North Fork Hills	3	MO
150	Big Piney Hills	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
156	Poplar Bluff Pinery	19	MO
159	Mudlick Mountain	12	MO

135 Shrub Swamp

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
136	LaRue/Trail of Tears	14,15,18	ILMO
145	North Fork Hills	3	MO

122 Siliceous Rock Wash

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
132	Cookson Hills	1	OK
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
150	Big Piney Hills	9	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
159	Mudlick Mountain	12	MO
161	Garret Hollow	5	AR
162	Rock Pile Mountain	12	MO
408	Wildcat Glade Complex	2	MO

134 Sinkhole Pond Marsh

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
142	Drury-Mincy	3	ARMO
410	Hampton Church Sinks	2	MO
419	Otter Creek Ponds	19	MO

133 Sinkhole Pond Shrub Swamp

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO
145	North Fork Hills	3	MO
155	White Ranch	7	ARMO
156	Poplar Bluff Pinery	19	MO
409	Murphy Pond	2	MO

116 Southern Flatwoods

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR

129 Streamside Fen

Site Number	Site Name	Subsection	State
131	Sylamore	1,3	AR
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
145	North Fork Hills	3	MO
150	Big Piney Hills	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
155	White Ranch	7	ARMO
420	Coonville Creek	12	MO

137 Swamp

Site Number	Site Name	Subsection	State
136	LaRue/Trail of Tears	14,15,18	ILMO

109 Upland Flatwoods

Site Number	Site Name	Subsection	State
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
155	White Ranch	7	ARMO
157	Mud Creek	19	MO

Appendix 5B. List of Portfolio Sites by Karst Community Target

164 Cave

Site Number	Site Name	Subsection	State
704	Onondaga Karst	SLP	MO
705	Meramec Karst	SLP	MO
706	Short Bend Karst	SLP	MO
710	Waynesville Karst	SLP	MO
711	Climax Springs Karst	SLP	MO
714	Cross Timbers Karst	SLP	MO
716	Lewis & Clark Karst	NB	MO
721	Stutts Karst	WR	MO
729	Eleven Point Karst	SLP	MO
730	Upper Current Karst	SLP	MO
734	Batesville Karst	WR	AR
735	Blanchard Springs Karst	WR	AR
736	Dodd City Karst	WR	AR
737	Buffalo City Karst	WR	AR
738	Freck Karst	WR	AR
740	Buffalo River Karst	WR	AR
742	Black Oak Karst	WR	AR
744	Devils Den Karst	WR	AR
747	Winset Hollow Karst	SPP	OK
748	Stilwell Karst	SPP	OK
752	Bryant Creek Karst	WR	MO
753	Coffin Cave CA	SLP	MO
759	Marvel Cave	WR	MO
760	Bearden Hollow Karst	WR	MO

165 Cave-Aquatic

Site Number	Site Name	Subsection	State
700	Renault Karst	EB	IL
701	Columbia Karst	EB	IL
702	Ste. Genevieve Karst	EB	MO
703	Perryville Karst	EB	MO
704	Onondaga Karst	SLP	MO
705	Meramec Karst	SLP	MO
708	Cave Ridge Karst	SLP	MO
709	Kaintuck Karst	SLP	MO
710	Waynesville Karst	SLP	MO
712	Ozark Caverns	SLP	MO
713	Ha Ha Tonka Karst	SLP	MO
715	Pierpont Karst	NB	MO
717	Fantastic Caverns	SPP	MO
718	Paris Springs Karst	SPP	MO
719	Crane Creek Karst	SPP	MO
720	Center Creek Karst	SPP	MO
721	Stutts Karst	WR	MO
722	Hub City Karst	WR	MO
723	Radium Spring Karst	WR	MO
724	Little Flat Creek Karst	SPP	MO
725	Neosho Karst	SPP	MO
726	Bella Vista Karst	SPP	AR
727	Caney Mountain Karst	WR	MO
728	Tumbling Creek Karst	WR	MO
729	Eleven Point Karst	SLP	MO
730	Upper Current Karst	SLP	MO
731	Powder Mill Karst	SLP	MO
732	Big Spring Karst	SLP	MO
734	Batesville Karst	WR	AR
735	Blanchard Springs Karst	WR	AR
739	War Eagle Karst	WR	AR
740	Buffalo River Karst	WR	AR
741	Withrow Springs Karst	WR	AR
743	Cave Springs Karst	SPP	AR
745	Bentonville Karst	SPP	AR
746	Spavinaw Creek Karst	SPP	OK
749	Jay Karst	SPP	OK
750	Jacks Fork Karst	SLP	MO
751	Beal Karst	SLP	MO

Appendix 5C. List of Portfolio Sites by *Aquatic Community* Target

166 Creek/Headwater Stream

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
2	Big Creek	WR	MO
4	Big River	MO	MO
5	Black River	WR	MO
6	Bonne Femme Creek	MO	MO
8	Brush Creek	MO	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
13	Clear Creek	MS	IL
17	Huzzah/Courtois Creeks	MO	MO
20	Kings River	WR	AR
21	Little Black River	WR	MO
22	Little Niangua River	MO	MO
23	Little Red River	WR	AR
25	Meramec River	MO	MO
26	Moniteau Creek	MO	MO
27	Mulberry River	AR	AR
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
32	River aux Vases	MS	MO
33	Rocky Creek	WR	MO
34	Roubidoux Creek	MO	MO
35	Saline Creek	MS	MO
36	Salt Creek	MO	MO
38	Spavinaw Creek	AR	AROK
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
43	Tavern Creek	MO	MO
44	Current River	WR	MO
45	Indian Creek	WR	ARMO
46	Bear Creek	WR	MO

168 Large River

Site Number	Site Name	Subsection	State
5	Black River	WR	MO
14	Eleven Point River	WR	ARMO
16	Gasconade River	MO	MO
25	Meramec River	MO	MO
31	Osage River	MO	MO
39	Spring River, AR	WR	ARMO
44	Current River	WR	MO

125 Large River Slough

Site Number	Site Name	Subsection	State
136	LaRue/Trail of Tears	14,15,18	ILMO
414	Pelican Island	17	MO

124 Ozark Slough

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
132	Cookson Hills	1	OK
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
145	North Fork Hills	3	MO
150	Big Piney Hills	9	MO
152	Meramec Hills	10	MO
159	Mudlick Mountain	12	MO

167 Small River

Site Number	Site Name	Subsection	State
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
7	Bourbeuse River	MO	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
23	Little Red River	WR	AR
24	Maries River	MO	MO
25	Meramec River	MO	MO
27	Mulberry River	AR	AR
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
34	Roubidoux Creek	MO	MO
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
44	Current River	WR	MO

126 Spring System

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
141	Roaring River	3	ARMO
144	Caney Hills	3	MO
145	North Fork Hills	3	MO
150	Big Piney Hills	9	MO
152	Meramec Hills	10	MO
153	Harold Alexander	7	AR
155	White Ranch	7	ARMO
701	Columbia Karst	EB	IL
710	Waynesville Karst	SLP	MO
725	Neosho Karst	SPP	MO
729	Eleven Point Karst	SLP	MO
730	Upper Current Karst	SLP	MO
731	Powder Mill Karst	SLP	MO
754	LaRue Pine Hills RNA Spring	EB	IL
755	Rockwoods Spring	EB	MO
756	Meramec Spring	SLP	MO
757	Salt Spring	NB	MO
758	Blackwater Spring	NB	MO

Appendix 5D. List of Portfolio Site by *Species* Target

IIPLE1L130 ACRONEURIA OZARKENSIS A PERLID STONEFLY

Site Number	Site Name	Subsection	State
10	Buffalo River	WR	AR
16	Gasconade River	MO	MO

IITRI33010 AGAPETUS ARTESUS ARTESIAN AGAPETUS CADDISFLY

Site Number	Site Name	Subsection	State
14	Eleven Point River	WR	ARMO
25	Meramec River	MO	MO
44	Current River	WR	MO

ARADE01014 AGKISTRODON CONTORTRIX PHAEOGASTER OSAGE COPPERHEAD

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK

IIPLE01130 ALLOCAPNIA JEANAE WINTER STONEFLY

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
20	Kings River	WR	AR

IIPLE01320 ALLOCAPNIA ORIBATA WINTER STONEFLY

Site Number	Site Name	Subsection	State
23	Little Red River	WR	AR

IIPLE01220 ALLOCAPNIA OZARKANA WINTER STONEFLY

Site Number	Site Name	Subsection	State
20	Kings River	WR	AR

ICMAL24010 ALLOCRANGONYX HUBRICHTI CENTRAL MISSOURI CAVE AMPHIPOD

Site Number	Site Name	Subsection	State
705	Meramec Karst	SLP	MO
708	Cave Ridge Karst	SLP	MO
709	Kaintuck Karst	SLP	MO
710	Waynesville Karst	SLP	MO
756	Meramec Spring	SLP	MO

AFCQB06030 AMBLOPLITES CONSTELLATUS OZARK BASS

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
8	Brush Creek	MO	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
15	Elk River	AR	MO
20	Kings River	WR	AR
28	Niangua River	MO	MO
29	North Fork White River	WR	MO

AFCLA01010 AMBLYOPSIS ROSAE OZARK CAVEFISH

Site Number	Site Name	Subsection	State
717	Fantastic Caverns	SPP	MO
718	Paris Springs Karst	SPP	MO
719	Crane Creek Karst	SPP	MO
720	Center Creek Karst	SPP	MO
724	Little Flat Creek Karst	SPP	MO
725	Neosho Karst	SPP	MO
739	War Eagle Karst	WR	AR
740	Buffalo River Karst	WR	AR
743	Cave Springs Karst	SPP	AR
745	Bentonville Karst	SPP	AR
746	Spavinaw Creek Karst	SPP	OK
749	Jay Karst	SPP	OK

IILEP80050 AMBLYSCIRTES LINDA LINDA'S ROADSIDE SKIPPER

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR

IIORT06010 AMBLYTROPIDIA MYSTECA GLADE GRASSHOPPER

Site Number	Site Name	Subsection	State
144	Caney Hills	3	MO

AAAAA01010 AMBYSTOMA ANNULATUM RINGED SALAMANDER

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
132	Cookson Hills	1	OK
134	Current River LCA	7,11,19	MO
137	Central Missouri Hills	14	MO
141	Roaring River	3	ARMO
148	Big Sugar Creek	4	MO
151	Kaintuck Hollow	9	MO
160	Cherokee-Gruber	5	OK

IMGASF4040 AMNICOLA CORA FOUSHEE CAVESNAIL

Site Number	Site Name	Subsection	State
734	Batesville Karst	WR	AR

IMGASF4110 AMNICOLA STYGIUS STYGIAN CAVESNAIL

Site Number	Site Name	Subsection	State
703	Perryville Karst	EB	MO
		EB	MO

PDEUP06020 ANDRACHNE PHYLLANTHOIDES MISSOURI BUCK-BRUSH

Site Number	Site Name	Subsection	State
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
144	Caney Hills	3	MO

IMGASF5010 ANTROBIA CULVERI TUMBLING CREEK CAVESNAIL

Site Number	Site Name	Subsection	State
728	Tumbling Creek Karst	WR	MO

ILARA29110 APOCHTHONIUS MYSTERIUS CAVE PSEUDOSCORPION

Site Number	Site Name	Subsection	State
703	Perryville Karst	EB	MO

ILARA29130 APOCHTHONIUS TITANICUS CAVE PSEUDOSCORPION

Site Number	Site Name	Subsection	State
735	Blanchard Springs Karst	WR	AR

ILARA29140 APOCHTHONIUS TYPHLUS CAVE PSEUDOSCORPION

Site Number	Site Name	Subsection	State
721	Stutts Karst	WR	MO
740	Buffalo River Karst	WR	AR

IICLL04090 ARRHOPALITES CAROLYNAE CAVE SPRINGTAIL

Site Number	Site Name	Subsection	State
700	Renault Karst	EB	IL

IICLL04040 ARRHOPALITES HIRTUS CAVE SPRINGTAIL

Site Number	Site Name	Subsection	State
700	Renault Karst	EB	IL

PDASC02150 ASCLEPIAS MEADII MEAD'S MILKWEED

Site Number	Site Name	Subsection	State
133	St. Francois Mountains	12	MO
140	Lamar LCA	2	MO
422	LaPetite Gemme Prairie	2	MO
423	Rockhill Prairie	8	MO

PDSCR05021 AUREOLARIA GRANDIFLORA CINEREA BIG-FLOWERED GERARDIA

Site Number	Site Name	Subsection	State
135	Western Ozarks Savanna	7,8	MO
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO

-- BACTRURUS PSEUDOMUCRONATUS CAVE AMPHIPOD

Site Number	Site Name	Subsection	State
729	Eleven Point Karst	SLP	MO
731	Powder Mill Karst	SLP	MO
732	Big Spring Karst	SLP	MO
750	Jacks Fork Karst	SLP	MO
751	Beal Karst	SLP	MO

-- BATRACOBDELLA CRYPTOBRANCHII OZARK HELLBENDER LEECH

Site Number	Site Name	Subsection	State
14	Eleven Point River	WR	ARMO
29	North Fork White River	WR	MO

PDAST1E040 BOLTONIA DECURRENS DECURRENT FALSE ASTER

Site Number	Site Name	Subsection	State
427	Horseshoe Lake	18	IL
428	Fairmont City	18	IL

AAABB01022 BUFO AMERICANUS CHARLESMITHI DWARF AMERICAN TOAD

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
132	Cookson Hills	1	OK

ICMAL01060 CAECIDOTEA ANCYLA ISOPOD

Site Number	Site Name	Subsection	State
712	Ozark Caverns	SLP	MO
726	Bella Vista Karst	SPP	AR
740	Buffalo River Karst	WR	AR
741	Withrow Springs Karst	WR	AR
750	Jacks Fork Karst	SLP	MO

ICMAL01520 CAECIDOTEA ANTRICOLA ISOPOD

Site Number	Site Name	Subsection	State
703	Perryville Karst	EB	MO
704	Onondaga Karst	SLP	MO
705	Meramec Karst	SLP	MO
710	Waynesville Karst	SLP	MO
713	Ha Ha Tonka Karst	SLP	MO
729	Eleven Point Karst	SLP	MO
730	Upper Current Karst	SLP	MO
732	Big Spring Karst	SLP	MO
734	Batesville Karst	WR	AR
735	Blanchard Springs Karst	WR	AR
736	Dodd City Karst	WR	AR
740	Buffalo River Karst	WR	AR
743	Cave Springs Karst	SPP	AR
745	Bentonville Karst	SPP	AR

ICMAL01070 CAECIDOTEA DIMORPHA ISOPOD

Site Number	Site Name	Subsection	State
722	Hub City Karst	WR	MO
738	Freck Karst	WR	AR

ICMAL01610 CAECIDOTEA FUSTIS ISOPOD

Site Number	Site Name	Subsection	State
704	Onondaga Karst	SLP	MO
		SLP	MO
		SLP	MO

ICMAL01230 CAECIDOTEA OCULATA ISOPOD

Site Number	Site Name	Subsection	State
747	Winset Hollow Karst	SPP	OK

ICMAL01320 CAECIDOTEA SALAMENSIS ISOPOD

Site Number	Site Name	Subsection	State
705	Meramec Karst	SLP	MO
709	Kaintuck Karst	SLP	MO
712	Ozark Caverns	SLP	MO
729	Eleven Point Karst	SLP	MO
730	Upper Current Karst	SLP	MO
750	Jacks Fork Karst	SLP	MO

ICMAL01690 CAECIDOTEA SERRATA ISOPOD

Site Number	Site Name	Subsection	State
750	Jacks Fork Karst	SLP	MO

ICMAL01080 CAECIDOTEA STEEVESI ISOPOD

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK
741	Withrow Springs Karst	WR	AR

ICMAL01090 CAECIDOTEA STILADACTYLA ISOPOD

Site Number	Site Name	Subsection	State
739	War Eagle Karst	WR	AR
740	Buffalo River Karst	WR	AR
741	Withrow Springs Karst	WR	AR
743	Cave Springs Karst	SPP	AR
746	Spavinaw Creek Karst	SPP	AR

PDMAL0A020 CALLIRHOE BUSHII BUSH'S POPPY MALLOW

Site Number	Site Name	Subsection	State
141	Roaring River	3	ARMO

PDMAL0A030 CALLIRHOE DIGITATA FRINGED POPPY MALLOW

Site Number	Site Name	Subsection	State
140	Lamar LCA	2	MO
141	Roaring River	3	ARMO
205	Greenfield Glade	2	MO

ICMAL07840 CAMBARUS ACULABRUM TROGLOBITIC CRAYFISH

Site Number	Site Name	Subsection	State
726	Bella Vista Karst	SPP	AR
743	Cave Springs Karst	SPP	AR

ICMAL07080 CAMBARUS CAUSEYI BOSTON MOUNTAINS CRAYFISH

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR

ICMAL07590 CAMBARUS HUBBSI HUBB'S CRAYFISH

Site Number	Site Name	Subsection	State
2	Big Creek	WR	MO
5	Black River	WR	MO
14	Eleven Point River	WR	ARMO
18	Jacks Fork River	WR	MO
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
44	Current River	WR	MO
46	Bear Creek	WR	MO

ICMAL07210 CAMBARUS HUBRICHTI SALEM CAVE CRAYFISH

Site Number	Site Name	Subsection	State
710	Waynesville Karst	SLP	MO
729	Eleven Point Karst	SLP	MO
730	Upper Current Karst	SLP	MO
732	Big Spring Karst	SLP	MO
756	Meramec Spring	SLP	MO

ICMAL07850 CAMBARUS MACULATUS FRECKLED CRAYFISH

Site Number	Site Name	Subsection	State
4	Big River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
25	Meramec River	MO	MO

ICMAL07220 CAMBARUS SETOSUS BRISTLY CAVE CRAYFISH

Site Number	Site Name	Subsection	State
717	Fantastic Caverns	SPP	MO
718	Paris Springs Karst	SPP	MO
719	Crane Creek Karst	SPP	MO
720	Center Creek Karst	SPP	MO
724	Little Flat Creek Karst	SPP	MO
725	Neosho Karst	SPP	MO
		SPP	MO

ICMAL07910 CAMBARUS SUBTERRANEUS BLIND CAVE CRAYFISH

Site Number	Site Name	Subsection	State
746	Spavinaw Creek Karst	SPP	OK
749	Jay Karst	SPP	OK

ICMAL07150 CAMBARUS TARTARUS OKLAHOMA CRAYFISH

Site Number	Site Name	Subsection	State
746	Spavinaw Creek Karst	SPP	OK

ICMAL07090 CAMBARUS ZOPHONASTES HELL CREEK CAVE CRAYFISH

Site Number	Site Name	Subsection	State
735	Blanchard Springs Karst	WR	AR

AFCJB03020 CAMPOSTOMA OLIGOLEPIS LARGESCALE STONEROLLER

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
2	Big Creek	WR	MO
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
7	Bourbeuse River	MO	MO
8	Brush Creek	MO	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
21	Little Black River	WR	MO
22	Little Niangua River	MO	MO
23	Little Red River	WR	AR
24	Maries River	MO	MO
25	Meramec River	MO	MO
26	Moniteau Creek	MO	MO
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
32	River aux Vases	MS	MO
33	Rocky Creek	WR	MO
34	Roubidoux Creek	MO	MO
35	Saline Creek	MS	MO
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
43	Tavern Creek	MO	MO
44	Current River	WR	MO
45	Indian Creek	WR	ARMO
46	Bear Creek	WR	MO

ABNTA07010 CAPRIMULGUS CAROLINENSIS CHUCK-WILL'S-WIDOW

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
140	Lamar LCA	2	MO
141	Roaring River	3	ARMO
143	Ava Glades	3	MO
144	Caney Hills	3	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO
155	White Ranch	7	ARMO
157	Mud Creek	19	MO

ABNTA07070 CAPRIMULGUS VOCIFERUS WHIP-POOR-WILL

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
140	Lamar LCA	2	MO
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
144	Caney Hills	3	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
155	White Ranch	7	ARMO
156	Poplar Bluff Pinery	19	MO
157	Mud Creek	19	MO

PMCYP034P0 CAREX FISSA VAR FISSA A SEDGE

Site Number	Site Name	Subsection	State
151	Kaintuck Hollow	9	MO

ARADB02013 CARPHOPHIS VERMIS WESTERN WORM SNAKE

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK

PDFAG01042 CASTANEA PUMILA VAR OZARKENSIS OZARK CHINQUAPIN

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR
132	Cookson Hills	1	OK
134	Current River LCA	7,11,19	MO
141	Roaring River	3	ARMO
148	Big Sugar Creek	4	MO

IICOL43010 CHAETOCNEMA ELONGATULA LEAF BEETLE

Site Number	Site Name	Subsection	State
429	Mount Vernon Prairie	2	MO

PDRAN080C0 CLEMATIS FREMONTII FREMONT'S LEATHER FLOWER

Site Number	Site Name	Subsection	State
163	Jefferson County Glades	14	MO

PDRAN080X0 CLEMATIS VERSICOLOR MANY-COLOR VIRGIN'S BOWER

Site Number	Site Name	Subsection	State
141	Roaring River	3	ARMO
143	Ava Glades	3	MO
145	North Fork Hills	3	MO

ABPAE32060 CONTOPUS VIRENS EASTERN WOOD PEWEE

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
140	Lamar LCA	2	MO
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
144	Caney Hills	3	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
155	White Ranch	7	ARMO
156	Poplar Bluff Pinery	19	MO
157	Mud Creek	19	MO
159	Mudlick Mountain	12	MO
162	Rock Pile Mountain	12	MO

AMACC08011 CORYNORHINUS TOWNSEDII INGENS OZARK BIG-EARED BAT

Site Number	Site Name	Subsection	State
722	Hub City Karst	WR	MO
736	Dodd City Karst	WR	AR
744	Devils Den Karst	WR	AR
748	Stilwell Karst	WR	OK

AFC4E02070 COTTUS CAROLINAE BANDED SCULPIN

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
2	Big Creek	WR	MO
3	Big Piney River	MO	MO
4	Big River	MO	MO
7	Bourbeuse River	MO	MO
8	Brush Creek	MO	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
13	Clear Creek	MS	IL
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
25	Meramec River	MO	MO
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
32	River aux Vases	MS	MO
33	Rocky Creek	WR	MO
34	Roubidoux Creek	MO	MO
35	Saline Creek	MS	MO
38	Spavinaw Creek	AR	AROK
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
44	Current River	WR	MO

AFC4E02250 COTTUS HYPSELURUS OZARK SCULPIN

Site Number	Site Name	Subsection	State
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
7	Bourbeuse River	MO	MO
9	Bryant Creek	WR	MO
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
18	Jacks Fork River	WR	MO
25	Meramec River	MO	MO
26	Moniteau Creek	MO	MO
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
33	Rocky Creek	WR	MO
34	Roubidoux Creek	MO	MO
39	Spring River, AR	WR	ARMO
44	Current River	WR	MO

ILARAB0010 CROSBYELLA DISTINCTA CAVE HARVESTMAN

Site Number	Site Name	Subsection	State
740	Buffalo River Karst	WR	AR

AAAAC01012 CRYTOBRANCHUS ALLEGANIENSIS BISHOPI OZARK HELLBENDER

Site Number	Site Name	Subsection	State
14	Eleven Point River	WR	ARMO
18	Jacks Fork River	WR	MO
29	North Fork White River	WR	MO
39	Spring River, AR	WR	ARMO
42	Strawberry River	WR	AR
44	Current River	WR	MO

IMBIV08010 CUMBERLANDIA MONODONTA SPECTACLECASE

Site Number	Site Name	Subsection	State
3	Big Piney River	MO	MO
4	Big River	MO	MO
7	Bourbeuse River	MO	MO
16	Gasconade River	MO	MO
25	Meramec River	MO	MO
27	Mulberry River	AR	AR
31	Osage River	MO	MO
34	Roubidoux Creek	MO	MO

AFCJB49060 CYPRINELLA CAMURA (NOTROPIS) BLUNTFACE SHINER

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
15	Elk River	AR	MO
27	Mulberry River	AR	AR
38	Spavinaw Creek	AR	AROK
40	Spring River	AR	MOKS O

AFCJB49090 CYPRINELLA GALACTURA (NOTROPIS) WHITETAIL SHINER

Site Number	Site Name	Subsection	State
5	Black River	WR	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
14	Eleven Point River	WR	ARMO
18	Jacks Fork River	WR	MO
23	Little Red River	WR	AR
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
44	Current River	WR	MO
46	Bear Creek	WR	MO

IMBIV10010 CYPROGENIA ABERTI WESTERN FANSHELL

Site Number	Site Name	Subsection	State
5	Black River	WR	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
21	Little Black River	WR	MO
23	Little Red River	WR	AR
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
44	Current River	WR	MO

PDRAN0B140 DELPHINIUM NEWTONIANUM MOORE'S LARKSPUR

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR

PDRAN0B1S0 DELPHINIUM TRELEASEI TRELEASE'S LARKSPUR

Site Number	Site Name	Subsection	State
131	Sylamore	1,3	AR
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
144	Caney Hills	3	MO

IPTUR11020 DENDROCOELOPSIS AMERICANA CAVE PLANARIAN

Site Number	Site Name	Subsection	State
747	Winset Hollow Karst	SPP	OK
749	Jay Karst	SPP	OK

PDFAB1D0M0 DESMODIUM HUMIFUSUM TRAILING TICK-TREFOIL

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO

PDPRI03060 DODECATHEON FRENCHII FRENCH'S SHOOTING STAR

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
139	Pickle Creek Complex	13	MO

PDBRA11060 DRABA APRICA WHITLOW GRASS

Site Number	Site Name	Subsection	State
131	Sylamore	1,3	AR
133	St. Francois Mountains	12	MO
134	Current River LCA	7,11,19	MO
139	Pickle Creek Complex	13	MO
162	Rock Pile Mountain	12	MO

PDAST38050 ECHINACEA PARADOXA BUSH'S YELLOW CONEFLOWER

Site Number	Site Name	Subsection	State
131	Sylamore	1,3	AR
135	Western Ozarks Savanna	7,8	MO
141	Roaring River	3	ARMO
144	Caney Hills	3	MO
400	Aux Vasse Glade	14	MO
423	Rockhill Prairie	8	MO

IMGASK2550 ELIMIA POTOSIENSIS PYRAMID ELIMIA

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
2	Big Creek	WR	MO
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
7	Bourbeuse River	MO	MO
9	Bryant Creek	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
22	Little Niangua River	MO	MO
25	Meramec River	MO	MO
27	Mulberry River	AR	AR
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
33	Rocky Creek	WR	MO
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
44	Current River	WR	MO
46	Bear Creek	WR	MO

AFCJB50030 ERIMYSTAX HARRYI (HYBOPSIS) OZARK CHUB

Site Number	Site Name	Subsection	State
2	Big Creek	WR	MO
5	Black River	WR	MO
10	Buffalo River	WR	AR
14	Eleven Point River	WR	ARMO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
23	Little Red River	WR	AR
29	North Fork White River	WR	MO
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO
44	Current River	WR	MO
46	Bear Creek	WR	MO

AFCJB50050 ERIMYSTAX X-PUNCTATA TRAUTMANNII (HYBOPSIS) WESTERN GRAVEL CHUB

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
3	Big Piney River	MO	MO
4	Big River	MO	MO
7	Bourbeuse River	MO	MO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
20	Kings River	WR	AR
23	Little Red River	WR	AR
24	Maries River	MO	MO
25	Meramec River	MO	MO
28	Niangua River	MO	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
38	Spavinaw Creek	AR	AROK
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
43	Tavern Creek	MO	MO
44	Current River	WR	MO

PMERI01040 ERIOCAULON KOERNICKIANUM SMALL-HEADED PIPEWORT

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR

PDPGN083R3 ERIOGONUM LONGIFOLIUM VAR LONGIFOLIUM UMBRELLA PLANT

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO

AFCQC02062 ETHEOSTOMA BLENNIOIDES NEWMANII GREENSIDE DARTER

Site Number	Site Name	Subsection	State
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
7	Bourbeuse River	MO	MO
8	Brush Creek	MO	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
21	Little Black River	WR	MO
22	Little Niangua River	MO	MO
23	Little Red River	WR	AR
24	Maries River	MO	MO
25	Meramec River	MO	MO
26	Moniteau Creek	MO	MO
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
32	River aux Vases	MS	MO
34	Roubidoux Creek	MO	MO
35	Saline Creek	MS	MO
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
43	Tavern Creek	MO	MO
44	Current River	WR	MO
46	Bear Creek	WR	MO

AFCQC02062 ETHEOSTOMA BLENNIOIDES NEWMANII (AR RACE) GREENSIDE DARTER

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
15	Elk River	AR	MO
27	Mulberry River	AR	AR
40	Spring River	AR	MOKSOK

AFCQC02C70 ETHEOSTOMA BURRI BROOK DARTER

Site Number	Site Name	Subsection	State
5	Black River	WR	MO

AFCQC02090 ETHEOSTOMA CAERULEUM (LITTLE RED SUBSP.) RAINBOW DARTER

Site Number	Site Name	Subsection	State
23	Little Red River	WR	AR

AFCQC02090 ETHEOSTOMA CAERULEUM (WHITE RIVER SUBSP.) RAINBOW DARTER

Site Number	Site Name	Subsection	State
2	Big Creek	WR	MO
5	Black River	WR	MO
8	Brush Creek	MO	MO
9	Bryant Creek	WR	MO
14	Eleven Point River	WR	ARMO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
21	Little Black River	WR	MO
22	Little Niangua River	MO	MO
24	Maries River	MO	MO
29	North Fork White River	WR	MO
32	River aux Vases	MS	MO
33	Rocky Creek	WR	MO
34	Roubidoux Creek	MO	MO
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
43	Tavern Creek	MO	MO
44	Current River	WR	MO
45	Indian Creek	WR	ARMO
46	Bear Creek	WR	MO

AFCQC02230 ETHEOSTOMA EUZONUM ERIZONUM CURRENT RIVER SADDLED DARTER

Site Number	Site Name	Subsection	State
18	Jacks Fork River	WR	MO
44	Current River	WR	MO

AFCQC02230 ETHEOSTOMA EUZONUM EUZONUM ARKANSAS SADDLED DARTER

Site Number	Site Name	Subsection	State
5	Black River	WR	MO
10	Buffalo River	WR	AR
14	Eleven Point River	WR	ARMO
20	Kings River	WR	AR
23	Little Red River	WR	AR
29	North Fork White River	WR	MO
39	Spring River, AR	WR	ARMO
42	Strawberry River	WR	AR

AFCQC02250 ETHEOSTOMA FLABELLARE (WHITE RIVER FORM) WHITE RIVER FANTAIL DARTER

Site Number	Site Name	Subsection	State
20	Kings River	WR	AR
46	Bear Creek	WR	MO

AFCQC02C50 ETHEOSTOMA FRAGI STRAWBERRY RIVER DARTER

Site Number	Site Name	Subsection	State
42	Strawberry River	WR	AR

AFCQC02360 ETHEOSTOMA JULIAE YOKE DARTER

Site Number	Site Name	Subsection	State
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
20	Kings River	WR	AR
29	North Fork White River	WR	MO
46	Bear Creek	WR	MO

AFCQC02450 ETHEOSTOMA MICROPERCA OZARKANUS OZARK LEAST DARTER

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
15	Elk River	AR	MO
16	Gasconade River	MO	MO
22	Little Niangua River	MO	MO
28	Niangua River	MO	MO
30	Osage Fork Gasconade Rive	MO	MO
38	Spavinaw Creek	AR	AROK
40	Spring River	AR	MOKSOK

AFCQC02460 ETHEOSTOMA MOOREI YELLOWCHEEK DARTER

Site Number	Site Name	Subsection	State
23	Little Red River	WR	AR

AFCQC02480 ETHEOSTOMA NIANGUAE NIANGUA DARTER

Site Number	Site Name	Subsection	State
8	Brush Creek	MO	MO
22	Little Niangua River	MO	MO
24	Maries River	MO	MO
28	Niangua River	MO	MO
43	Tavern Creek	MO	MO

AFCQC02610 ETHEOSTOMA PUNCTULATUM STIPPLED DARTER

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
3	Big Piney River	MO	MO
7	Bourbeuse River	MO	MO
8	Brush Creek	MO	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
20	Kings River	WR	AR
22	Little Niangua River	MO	MO
23	Little Red River	WR	AR
24	Maries River	MO	MO
26	Moniteau Creek	MO	MO
27	Mulberry River	AR	AR
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
33	Rocky Creek	WR	MO
34	Roubidoux Creek	MO	MO
38	Spavinaw Creek	AR	AROK
40	Spring River	AR	MOKSOK
43	Tavern Creek	MO	MO
44	Current River	WR	MO

AFCQC02780 ETHEOSTOMA TETRAZONUM MISSOURI SADDLED DARTER

Site Number	Site Name	Subsection	State
3	Big Piney River	MO	MO
4	Big River	MO	MO
7	Bourbeuse River	MO	MO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
24	Maries River	MO	MO
25	Meramec River	MO	MO
26	Moniteau Creek	MO	MO
28	Niangua River	MO	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
34	Roubidoux Creek	MO	MO
43	Tavern Creek	MO	MO

AFCQC02C60 ETHEOSTOMA UNIPORUM CURRENT ORANGE THROAT DARTER

Site Number	Site Name	Subsection	State
5	Black River	WR	MO
14	Eleven Point River	WR	ARMO
18	Jacks Fork River	WR	MO
21	Little Black River	WR	MO
39	Spring River, AR	WR	ARMO
44	Current River	WR	MO

AFCQC02870 ETHEOSTOMA ZONALE BANDED DARTER

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
3	Big Piney River	MO	MO
4	Big River	MO	MO
7	Bourbeuse River	MO	MO
8	Brush Creek	MO	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
20	Kings River	WR	AR
22	Little Niangua River	MO	MO
23	Little Red River	WR	AR
24	Maries River	MO	MO
25	Meramec River	MO	MO
27	Mulberry River	AR	AR
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
34	Roubidoux Creek	MO	MO
38	Spavinaw Creek	AR	AROK
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
43	Tavern Creek	MO	MO

AFCQC02870 ETHEOSTOMA ZONALE (BLACK RIVER RACE) BLACK RIVER BANDED DARTER

Site Number	Site Name	Subsection	State
5	Black River	WR	MO
14	Eleven Point River	WR	ARMO
18	Jacks Fork River	WR	MO
21	Little Black River	WR	MO
44	Current River	WR	MO

AAAAD05061 EURYCEA MULTIPLICATA GRISEOGASTER GRAYBELLY SALAMANDER

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK
141	Roaring River	3	ARMO
148	Big Sugar Creek	4	MO

AAAAD05120 EURYCEA TYNERENSIS OKLAHOMA SALAMANDER

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK
141	Roaring River	3	ARMO

IMGASG5110 FONTIGENS ALDRIICHI HOOSIER AMNICOLA

Site Number	Site Name	Subsection	State
704	Onondaga Karst	SLP	MO
705	Meramec Karst	SLP	MO
729	Eleven Point Karst	SLP	MO
731	Powder Mill Karst	SLP	MO
732	Big Spring Karst	SLP	MO
756	Meramec Spring	SLP	MO

IMGASG5090 FONTIGENS ANTROECETES ENIGMATIC CAVESNAIL

Site Number	Site Name	Subsection	State
701	Columbia Karst	EB	IL
703	Perryville Karst	EB	MO

IMGASG5120 FONTIGENS PROSERPINA PROSERPINE CAVESNAIL

Site Number	Site Name	Subsection	State
755	Rockwoods Spring	EB	MO

AFCNB04020 FUNDULUS CATENATUS NORTHERN STUDFISH

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
2	Big Creek	WR	MO
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
7	Bourbeuse River	MO	MO
8	Brush Creek	MO	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
21	Little Black River	WR	MO
22	Little Niangua River	MO	MO
23	Little Red River	WR	AR
24	Maries River	MO	MO
25	Meramec River	MO	MO
26	Moniteau Creek	MO	MO
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
32	River aux Vases	MS	MO
33	Rocky Creek	WR	MO
34	Roubidoux Creek	MO	MO
35	Saline Creek	MS	MO
38	Spavinaw Creek	AR	AROK
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
43	Tavern Creek	MO	MO
44	Current River	WR	MO
46	Bear Creek	WR	MO

IMBIV17100 FUSCONAIA OZARKENSIS OZARK PIGTOE

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
3	Big Piney River	MO	MO
10	Buffalo River	WR	AR
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
20	Kings River	WR	AR
23	Little Red River	WR	AR
29	North Fork White River	WR	MO
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
42	Strawberry River	WR	AR
44	Current River	WR	MO

ICMAL10020 GAMMARUS ACHERONDYTES ILLINIOS CAVE AMPHIPOD

Site Number	Site Name	Subsection	State
700	Renault Karst	EB	IL

PDCAR15010 GEOCARPON MINIMUM **GEOCARPON**

Site Number	Site Name	Subsection	State
215	Corry Branch Glade	2	MO
216	Corry Flatrocks	2	MO
217	Rice Glade	2	MO
218	Eudora Glade	2	MO
219	Maze Creek Powerline	2	MO
220	Carmack Branch Glade	2	MO
221	Maze Creek	2	MO
222	Bona Glade	2	MO
223	Flint Hill Glades	2	MO
426	Buzzard's Bluff	8	MO

IITRI14010 GLYPHOPSYCHE MISSOURI **MISSOURI GLYPHOPSYCHE CADDISFLY**

Site Number	Site Name	Subsection	State
756	Meramec Spring	SLP	MO

IIODO08170 GOMPHUS OZARKENSIS **OZARK CLUBTAIL DRAGONFLY**

Site Number	Site Name	Subsection	State
25	Meramec River	MO	MO

PDSAX0E141 HEUCHERA VILLOSA VAR ARKANSANA **ARKANSAS ALUMROOT**

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR

IITRI25060 HYDROPSYCHE PIATRIX **NET-SPINNING CADDISFLY**

Site Number	Site Name	Subsection	State
14	Eleven Point River	WR	ARMO
18	Jacks Fork River	WR	MO
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO
44	Current River	WR	MO

ABPBJ19010 HYLOCICHLA MUSTELINA **WOOD THRUSH**

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
139	Pickle Creek Complex	13	MO
142	Drury-Mincy	3	ARMO
144	Caney Hills	3	MO
145	North Fork Hills	3	MO
150	Big Piney Hills	9	MO
152	Meramec Hills	10	MO
155	White Ranch	7	ARMO
156	Poplar Bluff Pinery	19	MO
157	Mud Creek	19	MO
162	Rock Pile Mountain	12	MO

ILARA27010 ISLANDIANA SPEOPHILA **CAVERN SHEET-WEB SPIDER**

Site Number	Site Name	Subsection	State
729	Eleven Point Karst	SLP	MO

ARADB19057 LAMPROPELTIS TRIANGULUM SYSPILA **RED MILK SNAKE**

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK

IMBIV21110 LAMPSILIS ABRUBTA PINK MUCKET

Site Number	Site Name	Subsection	State
4	Big River	MO	MO
5	Black River	WR	MO
16	Gasconade River	MO	MO
25	Meramec River	MO	MO
31	Osage River	MO	MO
39	Spring River, AR	WR	ARMO

IMBIV21170 LAMPSILIS RAFINESQUEANA NEOSHO MUCKET

Site Number	Site Name	Subsection	State
15	Elk River	AR	MO
40	Spring River	AR	MOKSOK

IMBIV21181 LAMPSILIS REEVIANA BREVICULA BROKEN RAYS

Site Number	Site Name	Subsection	State
5	Black River	WR	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
20	Kings River	WR	AR
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
44	Current River	WR	MO

IMBIV21182 LAMPSILIS REEVIANA BRITTSI BRITTS MUSSEL

Site Number	Site Name	Subsection	State
3	Big Piney River	MO	MO
4	Big River	MO	MO
7	Bourbeuse River	MO	MO
25	Meramec River	MO	MO
26	Moniteau Creek	MO	MO
28	Niangua River	MO	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO

IMBIV21183 LAMPSILIS REEVIANA REEVIANA REEVE'S MUSSEL

Site Number	Site Name	Subsection	State
29	North Fork White River	WR	MO

IMBIV21220 LAMPSILIS STRECKERI SPECKLED POCKETBOOK

Site Number	Site Name	Subsection	State
23	Little Red River	WR	AR

IMBIV24020 LEPTODEA LEPTODON SCALESHELL

Site Number	Site Name	Subsection	State
4	Big River	MO	MO
7	Bourbeuse River	MO	MO
16	Gasconade River	MO	MO
25	Meramec River	MO	MO
27	Mulberry River	AR	AR
39	Spring River, AR	WR	ARMO
42	Strawberry River	WR	AR

IMGASK5150 LEPTOXIS ARKANSENSIS ARKANSAS MUDALIA

Site Number	Site Name	Subsection	State
9	Bryant Creek	WR	MO
29	North Fork White River	WR	MO

PDBRA1N0K0 LESQUERELLA FILIFORMIS MISSOURI BLADDER-POD

Site Number	Site Name	Subsection	State
205	Greenfield Glade	2	MO
206	Wilson's Creek	2	MO
207	Bois D'Arc	2	MO
208	Two Horse Glade	2	MO
209	Roberts Field	2	MO
210	Clear Creek Glade	2	MO
211	Phenix Glade	2	MO
212	Rocky Barrens	2	MO
213	Highway O Glade	2	MO
214	Pertuche Glade	2	MO

AFCJB51020 LUXILUS CARDINALIS (NOTROPIS) CARDINAL SHINER

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
15	Elk River	AR	MO
27	Mulberry River	AR	AR
38	Spavinaw Creek	AR	AROK
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK

AFCJB51070 LUXILUS PILSBRYI (NOTROPIS) DUSKYSTRIPE SHINER

Site Number	Site Name	Subsection	State
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
14	Eleven Point River	WR	ARMO
20	Kings River	WR	AR
23	Little Red River	WR	AR
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
46	Bear Creek	WR	MO

AFCJB51080 LUXILUS ZONATUS (NOTROPIS) BLEEDING SHINER

Site Number	Site Name	Subsection	State
2	Big Creek	WR	MO
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
7	Bourbeuse River	MO	MO
8	Brush Creek	MO	MO
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
22	Little Niangua River	MO	MO
24	Maries River	MO	MO
25	Meramec River	MO	MO
26	Moniteau Creek	MO	MO
28	Niangua River	MO	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
32	River aux Vases	MS	MO
33	Rocky Creek	WR	MO
34	Roubidoux Creek	MO	MO
35	Saline Creek	MS	MO
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
43	Tavern Creek	MO	MO
44	Current River	WR	MO

IPTUR05010 MACROCOTYLA GLANDULOSA PINK PLANARIAN

Site Number	Site Name	Subsection	State
715	Pierpont Karst	NB	MO

IPTUR05030 MACROCOTYLA LEWISI LEWIS' PLANARIAN

Site Number	Site Name	Subsection	State
703	Perryville Karst	EB	MO
		EB	MO

PDASC0A040 MATELEA BALDWYNIANA BALDWIN'S MILKVINE

Site Number	Site Name	Subsection	State
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
148	Big Sugar Creek	4	MO

IMGASM8050 MICROMENETUS SAMPSONI A SNAIL

Site Number	Site Name	Subsection	State
5	Black River	WR	MO
25	Meramec River	MO	MO

ABPBX05010 MNIOTILTA VARIA BLACK-AND-WHITE WARBLER

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO
156	Poplar Bluff Pinery	19	MO
159	Mudlick Mountain	12	MO

AFCJC10040 MOXOSTOMA CARINATUM RIVER REDHORSE

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
7	Bourbeuse River	MO	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
20	Kings River	WR	AR
25	Meramec River	MO	MO
27	Mulberry River	AR	AR
28	Niangua River	MO	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
43	Tavern Creek	MO	MO
44	Current River	WR	MO

ILARA35020 MUNDOCHTHONIUS CAVERNICOLUS TROGLOBITIC PSEUDOSCORPION

Site Number	Site Name	Subsection	State
700	Renault Karst	EB	IL

AMACC01040 MYOTIS GRISESCENS GRAY BAT

Site Number	Site Name	Subsection	State
700	Renault Karst	EB	IL
704	Onondaga Karst	SLP	MO
705	Meramec Karst	SLP	MO
706	Short Bend Karst	SLP	MO
708	Cave Ridge Karst	SLP	MO
710	Waynesville Karst	SLP	MO
711	Climax Springs Karst	SLP	MO
713	Ha Ha Tonka Karst	SLP	MO
714	Cross Timbers Karst	SLP	MO
715	Pierpont Karst	NB	MO
716	Lewis & Clark Karst	NB	MO
718	Paris Springs Karst	SPP	MO
721	Stutts Karst	WR	MO
728	Tumbling Creek Karst	WR	MO
729	Eleven Point Karst	SLP	MO
730	Upper Current Karst	SLP	MO
734	Batesville Karst	WR	AR
735	Blanchard Springs Karst	WR	AR
736	Dodd City Karst	WR	AR
737	Buffalo City Karst	WR	AR
738	Freck Karst	WR	AR
739	War Eagle Karst	WR	AR
740	Buffalo River Karst	WR	AR
743	Cave Springs Karst	SPP	AR
746	Spavinaw Creek Karst	SPP	AR
747	Winset Hollow Karst	SPP	OK
748	Stilwell Karst	SPP	OK
749	Jay Karst	SPP	OK
752	Bryant Creek Karst	WR	MO
753	Coffin Cave CA	SLP	MO
759	Marvel Cave	WR	MO
760	Bearden Hollow Karst	WR	MO

AMACC01100 MYOTIS SODALIS INDIANA BAT

Site Number	Site Name	Subsection	State
700	Renault Karst	EB	IL
704	Onondaga Karst	SLP	MO
705	Meramec Karst	SLP	MO
707	Pilot Knob Mine	SLP	MO
710	Waynesville Karst	SLP	MO
713	Ha Ha Tonka Karst	SLP	MO
716	Lewis & Clark Karst	NB	MO
728	Tumbling Creek Karst	WR	MO
730	Upper Current Karst	SLP	MO
733	Unimin Mines	EB	IL
734	Batesville Karst	WR	AR
735	Blanchard Springs Karst	WR	AR
736	Dodd City Karst	WR	AR
738	Freck Karst	WR	AR
739	War Eagle Karst	WR	AR
740	Buffalo River Karst	WR	AR
743	Cave Springs Karst	SPP	AR
744	Devils Den Karst	WR	AR
749	Jay Karst	SPP	OK

PMIRI0B030 NEMASTYLIS NUTTALLII CELESTIAL LILY

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
143	Ava Glades	3	MO
144	Caney Hills	3	MO
155	White Ranch	7	ARMO

AMAFF08010 NEOTOMA FLORIDANA OSAGENISIS OSAGE WOODRAT

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
159	Mudlick Mountain	12	MO

PDROS14010 NEVIUSIA ALABAMENSIS SNOW WREATH

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR

IICOL42010 NICROPHORUS AMERICANUS AMERICAN BURYING BEETLE

Site Number	Site Name	Subsection	State
160	Cherokee-Gruber	5	OK

AFCJB26010 NOCOMIS ASPER REDSPOT CHUB

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
15	Elk River	AR	MO
38	Spavinaw Creek	AR	AROK
40	Spring River	AR	MOKS O

AFCJB28500 NOTROPIS GREENEI WEDGESPOT SHINER

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
7	Bourbeuse River	MO	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
23	Little Red River	WR	AR
24	Maries River	MO	MO
25	Meramec River	MO	MO
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
34	Roubidoux Creek	MO	MO
38	Spavinaw Creek	AR	AROK
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO
43	Tavern Creek	MO	MO
44	Current River	WR	MO
46	Bear Creek	WR	MO

AFCJB28680 NOTROPIS NUBILUS OZARK MINNOW

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
2	Big Creek	WR	MO
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
8	Brush Creek	MO	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
21	Little Black River	WR	MO
22	Little Niangua River	MO	MO
24	Maries River	MO	MO
25	Meramec River	MO	MO
26	Moniteau Creek	MO	MO
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
33	Rocky Creek	WR	MO
34	Roubidoux Creek	MO	MO
38	Spavinaw Creek	AR	AROK
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
43	Tavern Creek	MO	MO
44	Current River	WR	MO
46	Bear Creek	WR	MO

AFCJB28710 NOTROPIS OZARCANUS OZARK SHINER

Site Number	Site Name	Subsection	State
5	Black River	WR	MO
10	Buffalo River	WR	AR
14	Eleven Point River	WR	ARMO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
29	North Fork White River	WR	MO
33	Rocky Creek	WR	MO
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
44	Current River	WR	MO

AFCJB28960 NOTROPIS TOPEKA TOPEKA SHINER

Site Number	Site Name	Subsection	State
6	Bonne Femme Creek	MO	MO
26	Moniteau Creek	MO	MO

AFCKA02010 NOTURUS ALBATER OZARK MADTOM

Site Number	Site Name	Subsection	State
2	Big Creek	WR	MO
5	Black River	WR	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
14	Eleven Point River	WR	ARMO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
23	Little Red River	WR	AR
29	North Fork White River	WR	MO
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
44	Current River	WR	MO

AFCKAD2250 NOTURUS EXILIS SLENDER MADTOM

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
7	Bourbeuse River	MO	MO
8	Brush Creek	MO	MO
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
21	Little Black River	WR	MO
22	Little Niangua River	MO	MO
23	Little Red River	WR	AR
24	Maries River	MO	MO
25	Meramec River	MO	MO
26	Moniteau Creek	MO	MO
27	Mulberry River	AR	AR
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
32	River aux Vases	MS	MO
34	Roubidoux Creek	MO	MO
38	Spavinaw Creek	AR	AROK
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
43	Tavern Creek	MO	MO
44	Current River	WR	MO
46	Bear Creek	WR	MO

AFCKA02050 NOTURUS FLAVATER CHECKERED MADTOM

Site Number	Site Name	Subsection	State
4	Big River	MO	MO
10	Buffalo River	WR	AR
14	Eleven Point River	WR	ARMO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
29	North Fork White River	WR	MO
39	Spring River, AR	WR	ARMO
44	Current River	WR	MO

AFCKA02200 NOTURUS PLACIDUS NEOSHO MADTOM

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
15	Elk River	AR	MO
38	Spavinaw Creek	AR	AROK
40	Spring River	AR	MOKSOK

IMBIV31010 OBOVARIA JACKSONIANA SOUTHERN HICKORYNUT

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
11	Castor River	WR	MO
41	St. Francis River	WR	MO

IITRI41020 OCHROTRICHIA CONTORTA CONTORTED OCHROTRICHIAN MICRO

Site Number	Site Name	Subsection	State
14	Eleven Point River	WR	ARMO

IICLL07010 ONCOPODURA HOFFI SPRINGTAIL

Site Number	Site Name	Subsection	State
703	Perryville Karst	EB	MO

IIODO12170 OPHIOGOMPHUS WESTFALLI OZARK SNAKETAIL DRAGONFLY

Site Number	Site Name	Subsection	State
25	Meramec River	MO	MO

ICMAL11180 ORCONECTES EUPUNCTUS COLDWATER CRAYFISH

Site Number	Site Name	Subsection	State
14	Eleven Point River	WR	ARMO
39	Spring River, AR	WR	ARMO

ICMAL07850 ORCONECTES HARRISONII BELTED CRAYFISH

Site Number	Site Name	Subsection	State
4	Big River	MO	MO
25	Meramec River	MO	MO

ICMAL11200 ORCONECTES HYLAS WOODLAND CRAYFISH

Site Number	Site Name	Subsection	State
5	Black River	WR	MO

ICMAL11490 ORCONECTES LONGIDIGITUS LONG-PINCERED CRAYFISH

Site Number	Site Name	Subsection	State
9	Bryant Creek	WR	MO
10	Buffalo River	WR	AR
15	Elk River	AR	MO
23	Little Red River	WR	AR
29	North Fork White River	WR	MO

ICMAL11500 ORCONECTES LUTEUS GOLDEN CRAYFISH

Site Number	Site Name	Subsection	State
2	Big Creek	WR	MO
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
7	Bourbeuse River	MO	MO
8	Brush Creek	MO	MO
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
25	Meramec River	MO	MO
26	Moniteau Creek	MO	MO
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
34	Roubidoux Creek	MO	MO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
44	Current River	WR	MO

ICMAL11510 ORCONECTES MACRUS NEOSHO MIDGET CRAYFISH

Site Number	Site Name	Subsection	State
15	Elk River	AR	MO
38	Spavinaw Creek	AR	AROK
40	Spring River	AR	MOKSOK

ICMAL11210 ORCONECTES MARCHANDI MAMMOTH SPRING CRAYFISH

Site Number	Site Name	Subsection	State
39	Spring River, AR	WR	ARMO

ICMAL11220 ORCONECTES MEDIUS SADDLEBACK CRAYFISH

Site Number	Site Name	Subsection	State
4	Big River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
25	Meramec River	MO	MO

ICMAL11520 ORCONECTES MEEKI MEEK'S CRAYFISH

Site Number	Site Name	Subsection	State
45	Indian Creek	WR	ARMO

ICMAL11240 ORCONECTES NEGLECTUS RINGED CRAYFISH

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
10	Buffalo River	WR	AR
15	Elk River	AR	MO
20	Kings River	WR	AR
38	Spavinaw Creek	AR	AROK
40	Spring River	AR	MOKSOK
45	Indian Creek	WR	ARMO
46	Bear Creek	WR	MO

ICMAL11241 ORCONECTES NEGLECTUS CHAENODACTYLUS GAPE-FINGERED RINGED CRAYFISH

Site Number	Site Name	Subsection	State
9	Bryant Creek	WR	MO
29	North Fork White River	WR	MO

ICMAL11580 ORCONECTES OZARKAE OZARK CRAYFISH

Site Number	Site Name	Subsection	State
5	Black River	WR	MO
9	Bryant Creek	WR	MO
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
21	Little Black River	WR	MO
29	North Fork White River	WR	MO
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
44	Current River	WR	MO
45	Indian Creek	WR	ARMO
46	Bear Creek	WR	MO

ICMAL11250 ORCONECTES PERUNCUS BIG CREEK CRAYFISH

Site Number	Site Name	Subsection	State
2	Big Creek	WR	MO
41	St. Francis River	WR	MO

ICMAL11600 ORCONECTES PUNCTIMANUS SPOT-HANDED CRAYFISH

Site Number	Site Name	Subsection	State
2	Big Creek	WR	MO
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
7	Bourbeuse River	MO	MO
9	Bryant Creek	WR	MO
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
25	Meramec River	MO	MO
26	Moniteau Creek	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
33	Rocky Creek	WR	MO
34	Roubidoux Creek	MO	MO
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
44	Current River	WR	MO

ICMAL11260 ORCONECTES QUADRUNCUS ST. FRANCIS CRAYFISH

Site Number	Site Name	Subsection	State
41	St. Francis River	WR	MO

-- ORCONECTES STYGOCANEYI CANEY MOUNTAIN CAVE CRAYFISH

Site Number	Site Name	Subsection	State
727	Caney Mountain Karst	WR	MO

ICMAL11680 ORCONECTES WILLIAMSI WILLIAMS' CRAYFISH

Site Number	Site Name	Subsection	State
45	Indian Creek	WR	ARMO
46	Bear Creek	WR	MO

IITRI07010 PADUNIELLA NEARCTICA NEARTIC PADUNIELLAN CADDISFLY

Site Number	Site Name	Subsection	State
4	Big River	MO	MO
23	Little Red River	WR	AR
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
39	Spring River, AR	WR	ARMO
44	Current River	WR	MO

IIORT05010 PARDALOPHORA SAUSSUREI GLADE GRASSHOPPER

Site Number	Site Name	Subsection	State
144	Caney Hills	3	MO

PDSCR1L0G0 PENSTEMON ARKANSANUS ARKANSAS BEARDTONGUE

Site Number	Site Name	Subsection	State
141	Roaring River	3	ARMO
142	Drury-Mincy	3	MO
143	Ava Glades	3	MO
144	Caney Hills	3	MO

PDSCR1L1F1 PENSTEMON COBAEA PURPUREUS PURPLE BEARD-TONGUE

Site Number	Site Name	Subsection	State
131	Sylamore	1,3	AR
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
144	Caney Hills	3	MO
153	Harold Alexander	7	AR

IIHEM05010 PENTACORA SIGNORETI SHORE BUG

Site Number	Site Name	Subsection	State
757	Salt Spring	NB	MO
758	Blackwater Spring	NB	MO

AFCQC04080 PERCINA CYMATOTAENIA BLUESTRIPE DARTER

Site Number	Site Name	Subsection	State
3	Big Piney River	MO	MO
16	Gasconade River	MO	MO
28	Niangua River	MO	MO
30	Osage Fork Gasconade Rive	MO	MO
34	Roubidoux Creek	MO	MO

AFCQC04090 PERCINA EVIDES (OZARK SUBSP.) GILT DARTER

Site Number	Site Name	Subsection	State
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
7	Bourbeuse River	MO	MO
10	Buffalo River	WR	AR
14	Eleven Point River	WR	ARMO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
25	Meramec River	MO	MO
30	Osage Fork Gasconade Rive	MO	MO
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
43	Tavern Creek	MO	MO
44	Current River	WR	MO

AFCQC04150 PERCINA NASUTA LONGNOSE DARTER

Site Number	Site Name	Subsection	State
23	Little Red River	WR	AR
27	Mulberry River	AR	AR
39	Spring River, AR	WR	ARMO
41	St. Francis River	WR	MO

PDHYD0C1N0 PHACELIA GILIOIDES BRAND PHACELIA

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO

AFCJB32032 PIMEPHALES TENELLUS PARVICEPS EASTERN SLIM MINNOW

Site Number	Site Name	Subsection	State
5	Black River	WR	MO
11	Castor River	WR	MO
20	Kings River	WR	AR
23	Little Red River	WR	AR
42	Strawberry River	WR	AR

ABPBX45030 PIRANGA RUBRA SUMMER TANAGER

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
144	Caney Hills	3	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO
151	Kaintuck Hollow	9	MO
152	Meramec Hills	10	MO
155	White Ranch	7	ARMO
156	Poplar Bluff Pinery	19	MO
157	Mud Creek	19	MO
159	Mudlick Mountain	12	MO
162	Rock Pile Mountain	12	MO

NBHEP2M012 PLAGIOCHILA ACANTHOPHYLLA LIVERWORT

Site Number	Site Name	Subsection	State
735	Blanchard Springs Karst	WR	AR

AAAAD12070 PLETHODON ALBAGULA WESTERN SLIMY SALAMANDER

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK

AAAAD12380 PLETHODON ANGUSTICLAVIUS OZARK ZIGZAG SALAMANDER

Site Number	Site Name	Subsection	State
148	Big Sugar Creek	4	MO

ICMAL14710 PROCAMBARUS LIBERORUM BURROWING CRAYFISH

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
20	Kings River	WR	AR
27	Mulberry River	AR	AR

ARAAD07026 PSEUDEMYS CONCINNA METTERI (PSEUDO) MISSOURI RIVER COOTER

Site Number	Site Name	Subsection	State
1	Baron Fork	AR	OK
2	Big Creek	WR	MO
3	Big Piney River	MO	MO
4	Big River	MO	MO
5	Black River	WR	MO
6	Bonne Femme Creek	MO	MO
7	Bourbeuse River	MO	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
16	Gasconade River	MO	MO
17	Huzzah/Courtois Creeks	MO	MO
18	Jacks Fork River	WR	MO
20	Kings River	WR	AR
21	Little Black River	WR	MO
22	Little Niangua River	MO	MO
23	Little Red River	WR	AR
24	Maries River	MO	MO
25	Meramec River	MO	MO
26	Moniteau Creek	MO	MO
27	Mulberry River	AR	AR
28	Niangua River	MO	MO
29	North Fork White River	WR	MO
30	Osage Fork Gasconade Rive	MO	MO
31	Osage River	MO	MO
32	River aux Vases	MS	MO
34	Roubidoux Creek	MO	MO
35	Saline Creek	MS	MO
38	Spavinaw Creek	AR	AROK
39	Spring River, AR	WR	ARMO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR
43	Tavern Creek	MO	MO
44	Current River	WR	MO

IICLL01070 PSEUDOSINELLA DUBIA A SPRINGTAIL

Site Number	Site Name	Subsection	State
742	Black Oak Karst	WR	AR
744	Devils Den Karst	WR	AR

-- PYRENULA MICHENERI A LICHEN

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO

IMGASJ0040 PYRGULOPSIS OZARKENSIS OZARK PYRG

Site Number	Site Name	Subsection	State
29	North Fork White River	WR	MO

IMGASJ0050 PYRGULOPSIS SCALARIFORMIS MOSS PYRG

Site Number	Site Name	Subsection	State
25	Meramec River	MO	MO

PDAST850B0 RUDBECKIA MISSOURIENSIS MISSOURI ORANGE CONEFLOWER

Site Number	Site Name	Subsection	State
138	Fults Hill Prairie Complex	15	IL

PDSAX0U1T0 SAXIFRAGA TEXANA TEXAS SAXIFRAGE

Site Number	Site Name	Subsection	State
216	Corry Flatrocks	2	MO
408	Wildcat Glade Complex	2	MO

IICOL4L040 SCAPHINOTUS INFLECTUS A GROUND BEETLE

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR

PMCYP0Q0R0 SCHOENOPLECTUS HALLII (SCIRPUS) HALL'S BULRUSH

Site Number	Site Name	Subsection	State
155	White Ranch	7	ARMO

ITUNI01010 SCOTERPES DENDROPUS CAVE MILLIPEDE

Site Number	Site Name	Subsection	State
728	Tumbling Creek Karst	WR	MO
729	Eleven Point Karst	SLP	MO
759	Marvel Cave	WR	MO

PDLAM1U0C0 SCUTELLARIA BUSHII BUSH'S SKULLCAP

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO
153	Harold Alexander	7	AR

PDCRA0A0S0 SEDUM NUTTALLIANUM NUTTALL'S SEDUM

Site Number	Site Name	Subsection	State
408	Wildcat Glade Complex	2	MO

ABPBX10030 SEIURUS MOTACILLA LOUISIANA WATERTHRUSH

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
140	Lamar LCA	2	MO
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO
152	Meramec Hills	10	MO
157	Mud Creek	19	MO
162	Rock Pile Mountain	12	MO

PDBRA29010 SELENIA AUREA GOLDEN SELENIA

Site Number	Site Name	Subsection	State
216	Corry Flatrocks	2	MO
408	Wildcat Glade Complex	2	MO

PDCAR0U180 SILENE OVATA OVATE-LEAF CATCHFLY

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
131	Sylamore	1,3	AR

ABPA201020 SITTA CAROLINENSIS WHITE-BREASTED NUTHATCH

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
136	LaRue/Trail of Tears	14,15,18	ILMO
137	Central Missouri Hills	14	MO
139	Pickle Creek Complex	13	MO
140	Lamar LCA	2	MO
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO
151	Kaintuck Hollow	9	MO
155	White Ranch	7	ARMO
157	Mud Creek	19	MO
159	Mudlick Mountain	12	MO
162	Rock Pile Mountain	12	MO

PDAST8P0P0 SOLIDAGO GATTINGERI GATTINGER'S GOLDENROD

Site Number	Site Name	Subsection	State
135	Western Ozarks Savanna	7,8	MO
141	Roaring River	3	ARMO
143	Ava Glades	3	MO
163	Jefferson County Glades	14	MO

IIODO32110 SOMATOCHLORA HINEANA HINE'S EMERALD DRAGONFLY

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO
151	Kaintuck Hollow	9	MO

IIODO32180 SOMATOCHLORA OZARKENSIS OZARK EMERALD DRAGONFLY

Site Number	Site Name	Subsection	State
16	Gasconade River	MO	MO
33	Rocky Creek	WR	MO

IMGASJ2370 SOMATOGYRUS ROSEWATERI CHERT PEBBLESNAIL

Site Number	Site Name	Subsection	State
15	Elk River	AR	MO

IILEPJ6010 SPEYERIA DIANA DIANA

Site Number	Site Name	Subsection	State
132	Cookson Hills	1	OK
141	Roaring River	3	ARMO

IPTUR04120 SPHALLOPLANA EVAGINATA CAVE PLANARIAN

Site Number	Site Name	Subsection	State
703	Perryville Karst	EB	MO

IPTUR04080 SPHALLOPLANA HUBRICHTI CAVE PLANARIAN

Site Number	Site Name	Subsection	State
700	Renault Karst	EB	IL
701	Columbia Karst	EB	IL
702	Ste. Genevieve Karst	EB	MO

ABNNM08102 STERNA ANTILLARUM ATHALASSOS INTERIOR LEAST TERN

Site Number	Site Name	Subsection	State
136	LaRue/Trail of Tears	14,15,18	ILMO

ICMAL05540 STYGOBROMUS ONONDAGAENSIS ONONDAGA CAVE AMPHIPOD

Site Number	Site Name	Subsection	State
704	Onondaga Karst	SLP	MO
705	Meramec Karst	SLP	MO
710	Waynesville Karst	SLP	MO
713	Ha Ha Tonka Karst	SLP	MO
718	Paris Springs Karst	SPP	MO
728	Tumbling Creek Karst	WR	MO
729	Eleven Point Karst	SLP	MO
750	Jacks Fork Karst	SLP	MO

ICMAL05280 STYGOBROMUS OZARKENSIS OZARK CAVE AMPHIPOD

Site Number	Site Name	Subsection	State
722	Hub City Karst	WR	MO
723	Radium Spring Karst	WR	MO
726	Bella Vista Karst	SPP	AR
728	Tumbling Creek Karst	WR	MO
740	Buffalo River Karst	WR	AR
741	Withrow Springs Karst	WR	AR
743	Cave Springs Karst	SPP	AR
745	Bentonville Karst	SPP	AR
746	Spavinaw Creek Karst	SPP	AR
759	Marvel Cave	WR	MO

ABPBG07010 THRYOMANES BEWICKII EASTERN BEWICK'S WREN

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO
135	Western Ozarks Savanna	7,8	MO
139	Pickle Creek Complex	13	MO
140	Lamar LCA	2	MO
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
144	Caney Hills	3	MO
145	North Fork Hills	3	MO
148	Big Sugar Creek	4	MO
150	Big Piney Hills	9	MO
152	Meramec Hills	10	MO
155	White Ranch	7	ARMO
159	Mudlick Mountain	12	MO

IMBIV43030 TOXOLASMA LIVIDUS (GLANS) PURPLE LILLIPUT

Site Number	Site Name	Subsection	State
9	Bryant Creek	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
21	Little Black River	WR	MO
29	North Fork White River	WR	MO
40	Spring River	AR	MOKS O

PMCOM0B0H TRADESCANTIA OZARKANA OZARK SPIDERWORT

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
141	Roaring River	3	ARMO
142	Drury-Mincy	3	ARMO
143	Ava Glades	3	MO
144	Caney Hills	3	MO

ITUNI76010 TRIGENOTYLA PARCA CAVE MILLIPEDE

Site Number	Site Name	Subsection	State
742	Black Oak Karst	WR	AR
744	Devils Den Karst	WR	AR

PMLIL200Q1 TRILLIUM PUSILLUM VAR OZARKANUM OZARK WAKE ROBIN

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
155	White Ranch	7	ARMO
411	Baker Prairie	1	AR

PMLIL20110 TRILLIUM VIRIDE GREEN TRILLIUM

Site Number	Site Name	Subsection	State
137	Central Missouri Hills	14	MO

AAAAD16010 TYPHLOTRITON SPELAEUS GROTTO SALAMANDER

Site Number	Site Name	Subsection	State
704	Onondaga Karst	SLP	MO
705	Meramec Karst	SLP	MO
709	Kaintuck Karst	SLP	MO
710	Waynesville Karst	SLP	MO
712	Ozark Caverns	SLP	MO
713	Ha Ha Tonka Karst	SLP	MO
717	Fantastic Caverns	SPP	MO
721	Stutts Karst	WR	MO
722	Hub City Karst	WR	MO
728	Tumbling Creek Karst	WR	MO
729	Eleven Point Karst	SLP	MO
730	Upper Current Karst	SLP	MO
731	Powder Mill Karst	SLP	MO
752	Bryant Creek Karst	WR	MO
759	Marvel Cave	WR	MO
760	Bearden Hollow Karst	WR	MO

PDVAL04080 VALERIANELLA NUTTALLII NUTTALL CORN-SALAD

Site Number	Site Name	Subsection	State
130	Boston Mountains	1,5,6	AR
160	Cherokee-Gruber	5	OK

PDVAL04090 VALERIANELLA OZARKANA OZARK CORN SALAD

Site Number	Site Name	Subsection	State
141	Roaring River	3	ARMO
148	Big Sugar Creek	4	MO

IMBIVA4020 VENUSTACONCHA PLEASII BLEEDINGTOOTH

Site Number	Site Name	Subsection	State
3	Big Piney River	MO	MO
5	Black River	WR	MO
10	Buffalo River	WR	AR
11	Castor River	WR	MO
14	Eleven Point River	WR	ARMO
15	Elk River	AR	MO
23	Little Red River	WR	AR
29	North Fork White River	WR	MO
40	Spring River	AR	MOKSOK
41	St. Francis River	WR	MO
42	Strawberry River	WR	AR

IMGAS20190 VERTIGO MERAMECENSIS BLUFF VERTIGO

Site Number	Site Name	Subsection	State
152	Meramec Hills	10	MO

IMGASF0030 VIVIPARUS SUBPURPUREUS OLIVE MYSTERYSNAIL

Site Number	Site Name	Subsection	State
5	Black River	WR	MO
25	Meramec River	MO	MO

IICOLE7010 XENOCHALEPUS POTOMACA LEAF BEETLE

Site Number	Site Name	Subsection	State
134	Current River LCA	7,11,19	MO

IICOLJA020 XENOTRECHUS DENTICOLLIS CAVE BEETLE

Site Number	Site Name	Subsection	State
702	Ste. Genevieve Karst	EB	MO