

MISSOURI DEPARTMENT OF CONSERVATION



2004



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This checklist is updated annually. The most current version is always available by contacting the Missouri Department of Conservation, Science Division. *Checklist* information is also available on the Missouri Department of Conservation's website: www.missouriconservation.org/nathis/endangered/index.htm

INTRODUCTION

The Department of Conservation is charged with the protection and management of Missouri's fish, forest, and wildlife resources. In the brief time since the settlement of Missouri, many plants and animals have declined to levels of concern and some have disappeared entirely. The species cataloged in this checklist represent 18 percent of the native vascular plants, 14 percent of the nonvascular plants and 28 percent of the vertebrate animals in Missouri. Together, the animals, plants, and natural communities represent Missouri's biological diversity—a heritage worth protecting.

The Department maintains two references relating to the status of listed plants and animals in Missouri; the *Missouri Species of Conservation Concern Checklist* and the *Wildlife Code of Missouri*. The *Missouri Species of Conservation Concern Checklist* possesses no legal authority and is utilized for planning and communication purposes. All species in the State of Missouri are protected as biological diversity elements unless a method of legal harvest is described in the *Wildlife Code*. Species listed in the *Wildlife Code* under 3CSR10-4.111 are protected by State Endangered Species Law 252.240. Some of the plants and animals in the checklist also appear in the *Wildlife Code* and are afforded special legal protection. All federally endangered and threatened plants and animals are protected by the Endangered Species Act of 1973 (ESA) and by Missouri State Endangered Species Law.

How to use the checklist

The checklist, developed with the cooperation of specialists throughout the state, is a list of plants, animals, and natural communities the Department of Conservation is particularly concerned about due to population declines or apparent vulnerability. The state rank (SRANK) shows the level of concern for each species' continued existence in Missouri. For each Element (i.e., species, subspecies or variety, or natural community type), at least 6 basic factors are considered when assigning an SRANK:

- the estimated number of Element Occurrences (EOs) throughout the Element's state range
- the estimated state abundance of the Element (measured by population, area, or stream length)
- the estimated size of the Element's state range
- the trend in the Element's distribution over its state range
- the estimated number of adequately protected EOs throughout the Element's state range
- the degree to which the Element is threatened in the state

The checklist also indicates, for each lichen, plant, and animal Element in the heritage inventory, information on the Element's global rank (i.e., its relative rarity or endangerment in the world). This is useful for understanding the relative rarity or endangerment of an Element from a global perspective (beyond state, national, or regional boundaries). Global ranks (i.e., GRANKS), are completed by the Heritage/Conservation Data Center personnel and/or NatureServe. For each Element, the same six factors listed above for SRANKS are considered when assigning GRANKS, but in a global context. Additionally, the fragility or susceptibility of the Element to intrusion or disturbance is considered when assigning a global rank.

The checklist is arranged by broad taxonomic groups (e.g., terrestrial natural communities, flowering plants, insects, fish, mammals). Within each group, species are arranged alphabetically by their scientific names and terrestrial natural communities by community type. Each Element is identified by its scientific name, common name, federal status, state status, global rank, and state rank.

TERMS AND DEFINITIONS

FEDERAL STATUS

The federal status is derived from the provisions of the Endangered Species Act of 1973, as amended, which is administered by the U.S. Fish and Wildlife Service. Passage of the Endangered Species Act of 1973 gave the United States one of the most far-reaching laws ever enacted by any country to prevent the extinction of imperiled animals and plants. Protecting endangered and threatened species and restoring them to the point where their existence is no longer jeopardized is the primary objective of the Fish and Wildlife Service's Endangered Species Program.

- **E** = Endangered: Any species which is in danger of extinction throughout all or a significant portion of its range.
- T = Threatened: Any species which is likely to become endangered within the foreseeable future.
- C = Candidate: Plants or animals which the Service is reviewing for possible addition to the list of endangered and threatened species.
- **PE** = Proposed endangered: Species officially proposed for listing as endangered; final ruling not yet made.
- **PT** = Proposed threatened: Species officially proposed for listing as threatened; final ruling not yet made.

STATE STATUS

Rule 3CSR10-4.111 of the Wildlife Code of Missouri and certain state statutes apply to state Code listed species.

E = "Endangered": Determined by the Department of Conservation under constitutional authority.

GLOBAL RANK

A numeric rank (G1 through G5) of relative endangerment based primarily on the number of occurrences of the element (i.e., species, subspecies, or variety) globally. Other factors in addition to the number of occurrences are considered when assigning a rank, so the numbers of occurrences suggested for each numeric rank below are not absolute guidelines.

- **G1** = Critically imperiled globally because of extreme rarity or because of some factor(s) making it especially vulnerable to extinction. (typically 5 or fewer occurrences or very few remaining individuals or acres)
- **G2** = Imperiled globally because of rarity or because of some factor(s) making it very vulnerable to extinction throughout its range. (6 to 20 occurrences or few remaining individuals or acres)
- **G3** = Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range (e.g., a single western state, a physiographic region in the East) or because of other factors making it vulnerable to extinction throughout its range. (21 to 100 occurrences)
- **G4** = Widespread, abundant, and apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery. Thus, the element is of long-term concern. (usually more than 100 occurrences)
- **G5** = Demonstrably widespread, abundant, and secure globally, though it may be quite rare in parts of its range, especially at the periphery.

- **G#G#** = Numeric range rank: A range between two of the numeric ranks. Denotes range of uncertainty about the exact rarity of the element.
- **GNR** = Not ranked: Status has not been assessed.
- **GU** = Unrankable: Possibly in peril range-wide but status uncertain; need more information.
- **GH** = Historical: Of historical occurrence throughout its range, i.e., formerly part of the established biota, with the expectation that it may be rediscovered (e.g., Bachman's warbler).
- **GX** = Extinct: Believed to be extinct throughout range (e.g., passenger pigeon) with virtually no likelihood that it will be rediscovered.

SUBRANK.

T = Taxonomic subdivision: Rank applies to a subspecies or variety.

OUALIFIERS:

- ? = Inexact: Denotes inexact numeric rank.
- **Q** = Questionable taxonomy: Taxonomic status is questionable; numeric rank may change with taxonomy.

STATE RANK

A numeric rank (S1 through S5) of relative endangerment based primarily on the number of occurrences of the element (i.e., species, subspecies, or variety) within the state. Other factors considered when assigning a rank include: abundance, population trends, distribution, number of protected sites, degree of threat, suitable habitat trends, level of survey effort and life history. Thus, the number of occurrences suggested for each numeric rank below are not absolute guidelines. Missouri species of conservation concern typically do not fall within the range of S4-S5.

- **S1** = Critically imperiled in the state because of extreme rarity or because of some factor(s) making it especially vulnerable to extirpation from the state. (typically 5 or fewer occurrences or very few remaining individuals or acres)
- **S2** = Imperiled in the state because of rarity or because of some factor(s) making it very vulnerable to extirpation from the state. (6 to 20 occurrences or few remaining individuals or acres)
- S3 = Rare and uncommon in the state. (21 to 100 occurrences)
- **S4** = Widespread, abundant, and apparently secure in state, with many occurrences, but the species is of long-term concern. (usually more than 100 occurrences)
- **S5** = Demonstrably widespread, abundant, and secure in the state, and essentially ineradicable under present conditions.
- S#S# = Numeric range rank: A range between two of the ranks. Denotes range of uncertainty about the exact rarity of the element.
 - **S?** = Unranked: Species is not yet ranked in the state.
 - **SU** = Unrankable: Possibly in peril in the state, but status uncertain; need more information.

- **SE** = Exotic: An exotic established in the state; may be native in nearby regions (e.g., house finch or catalpa in eastern U.S.)
- **SA** = Accidental: Accidental or casual in the state (i.e., infrequent and far outside usual range).
- **SP** = Potential: Potential that element occurs in the state but no occurrences reported.
- **SR** = Reported: Element reported in the state but without persuasive documentation which would provide a basis for either accepting or rejecting (e.g., misidentified specimen) the report.
- **SRF** = Reported falsely: Element erroneously reported in the state and the error has persisted in the literature.
- **SH** = Historical: Element occurred historically in the state (with expectation that it may be rediscovered). Perhaps having not been verified in the past 20 years, and suspected to be still extant.
- **SX** = Extirpated: Element is believed to be extirpated from the state.

QUALIFIERS:

? = Inexact or uncertain: For numeric ranks, denotes inexactness; for SE denotes uncertainty of exotic status. (The ? qualifies the character immediately preceding it in the SRANK.)

SPECIES CHANGES

STATUS CHANGES:

PLANTS

Eleocharis wolfii (Wolf's spike rush) from S2 to S3 based on more than 20 sites documented in Missouri.

Iva xanthifolia (a marsh elder) from SH to S1 based on the discovery of a year 2000 Doug Ladd collection of the species during the herbaria searches by Nels Holmberg. The other collections are historical but the single modern record is enough to justify the change in state rank.

Lesquerella filiformis (Missouri bladder-pod) from federally endangered to federally threatened based on the increased number of known sites and the decreased threats identified in the species' recovery plan.

Monarda punctata var. villicaulis (horsemint) from SH to S2 based on a review of herbarium specimens by Nels Holmberg which produced 6 extant records in addition to several historical specimens.

Sphagnum capillifolium (sphagnum) changed from SRF to S1. Based on recent review at MOBOT of specimens and taxonomy for an update of the Missouri moss flora listing, existing records were found for this species.

Sphagnum fallax (sphagnum) from S1 to SRF based on recent review at MOBOT of specimens and taxonomy for an update of the Missouri moss flora listing.

Sphagnum subtile (sphagnum) from S1 to SRF based on recent review of specimens by MOBOT bryologists.

AMPHIBIANS

Cryptobranchus alleganiensis alleganiensis (eastern hellbender) from proposed state endangered to endangered due to recent information documenting drastic declines throughout its ranges.

Cryptobranchus alleganiensis bishopi (Ozark hellbender) from proposed state endangered to endangered due to recent information documenting drastic declines throughout its ranges.

MAMMALS

Canis lupus (gray wolf) from federal endangered to federal threatened in the eastern portion of its range since wolf populations in Minnesota, Wisconsin, and Michigan have met their recovery goals. Individual wolves dispersing into other states of the Midwest are considered incidental.

ADDITIONS:

PLANTS

Aneura maxima (a liverwort) as SU based on recent collections by Alan Brant.

Cyperus retrorsus (an umbrella sedge) as SH. This species recently came to light when documented from Missouri with publication of the pertinent volume of the Flora of North America. Yatskievych confirmed the determination of the sole specimen from Dunklin Co. (1895).

PLANTS (Cont.)

Marchantia aquatica (a liverwort) SU based on recent collections by Alan Brant.

Spermolepis divaricata (rough-fruit spermolepis) as S1. This addition is a correction to a misprint in the tracking status of the previous checklist. SRANK change is based on the scarcity of records for *S. divaricata* and the restriction of its geographical range and natural community type.

Sphagnum affine (sphagnum) as S1 based on recent review at MOBOT of specimens and taxonomy for an update of the Missouri moss flora listing.

Sphagnum bartlettianum (sphagnum) as SU based on a review of specimens at the SMS herbarium by bryologists from the MO Botanical Garden.

Sphagnum henryense (sphagnum) as S1 based on information from bryologists at MOBOT who have recently completed a review of specimens.

Sphagnum inundatum (sphagnum) as S1 based on information from bryologists at MOBOT who have recently completed a review of specimens.

Sphagnum recurvum (sphagnum) as S1 based on recent review at MOBOT of specimens and taxonomy for an update of the Missouri moss flora listing.

Sphagnum trinitense (sphagnum) as S1 based on information from bryologists at MOBOT who have recently completed a review of specimens.

Viburnum ozarkense (Ozark arrow wood) as S2S3 based on the recent publication: Weckman, T.J. 2002. Reinstatement of *Viburnum ozarkense* (Caprifoliaceae): en endemic taxon of the interior highlands of Arkansas, Missouri and Oklahoma. Sida 20(2) pp. 849-860. This publication separated this Ozark endemic from the more common *Viburnum molle*. The shrub is known from Howell and Oregon counties in Missouri, two counties in Oklahoma and at more numerous sites in Arkansas.

FISH

Notropis texanus (weed shiner) as S3. This addition is due to a 100% decline in the Bootheel over the last 60 years. This species still occurs in the St. Francis River and Black River.

Etheostoma euzonum erizonum (Current River saddled darter) as S3. This species occurs in only 5 reaches in relatively low numbers.

Etheostoma euzonum euzonum (Arkansas saddled darter) as S2. This species only occurs in good numbers in one stream in the state, Beaver Creek.

DELETIONS:

PLANTS

Spermolepis inermis (Red River spermolepis) removed from the Checklist. This deletion is a correction to a misprint in the tracking status of the previous checklist. S3? remains the same.

Sphagnum imbricatum (sphagnum) changed from S1 to SSYN and removed from the Checklist based on recent review at MOBOT of specimens and taxonomy for an update of the Missouri moss flora listing.

TAXONOMIC CHANGES: PLANTS

Sphagnum capillaceum var tenerum to Sphagnum tenerum (sphagnum)

Sphagnum fimbriatum to Sphagnum fimbriatum var. fimbriatum (sphagnum)

TERRESTRIAL NATURAL COMMUNITIES

In addition to lichens, plants, and animals, the Missouri Natural Heritage Program tracks occurrences of high quality natural communities. Terrestrial natural communities are interrelated assemblages of plants, animals, and other living organisms incorporated into their physical surroundings- including geologic substrate, soils, topography and aspect- that are shaped by climate and other natural processes. High quality sites are ones that provide diverse assemblages of native species and represent the least distressed examples of ecosystems that existed in Missouri prior to European settlement. These natural communities frequently provide the habitat necessary for Missouri's listed lichens, plants, and animals. Because the Missouri Department of Conservation tracks occurrences of high quality natural communities, we encourage the submission of site information on natural communities as we do for species listed in this Checklist.

State ranks are assigned to natural communities using criteria that are similar to species SRANKs. (Criteria include total number of occurrences, number of occurrences by grade [A-D], total acres, number of counties in which the community type occurs, number of protected occurrences, and threats.) Global ranks are not applied to communities due to the difficulty in reconciling Missouri's classification system with larger scale classifications.

Natural community types have been classified using The Terrestrial Natural Communities of Missouri (Nelson, 1985). This classification system was developed to accomplish an inventory of the state's natural communities, prioritized by quality, size and distribution, to help meet land protection goals. Inventory results suggest that certain changes in the 1985 classification would more accurately reflect the natural community types that occur or that could be restored across the state. Biologists from Missouri Department of Conservation, Missouri Department of Natural Resources, National Park Service Ozark National Scenic Riverways, United States Forest Service Mark Twain National Forest, and The Nature Conservancy continue revising the 1985 classification. The Terrestrial Natural Communities tracked in Heritage are listed below with their SRANKs by major community type.

COMMUNITY TYPE	SRANK
FOREST	
Dry-Mesic Loess/Glacial Till Forest	S3
Mesic Loess/Glacial Till Forest	S3
Dry-Mesic Limestone/Dolomite Forest	S3
Mesic Limestone/Dolomite Forest	S3
Dry-Mesic Chert Forest	S4
Dry-Mesic Sandstone Forest	S3
Mesic Sandstone Forest	S2
Dry-Mesic Sand Forest	S 1
Mesic Sand Forest	S 1
Dry-Mesic Igneous Forest	S4
Dry-Mesic Bottomland Forest	S3
Mesic Bottomland Forest	S2
Wet-Mesic Bottomland Forest	S3
Wet Bottomland Forest	S2
Riverfront Forest	S4

COMMUNITY TYPE WOODLAND	SRANK
Dry Loess/Glacial Till Woodland	S3
Dry-Mesic Loess/Glacial Till Woodland	S3
Dry Limestone/Dolomite Woodland	S3
Dry Mesic Limestone/Dolomite Woodlar	
Dry Chert Woodland	S4
Dry-Mesic Chert Woodland	S4
Dry Sandstone Woodland	S3
Dry-Mesic Sandstone Woodland	S3
Dry Sand Woodland	S1
Dry-Mesic Sand Woodland	S2
Dry Igneous Woodland	S4
Dry-Mesic Igneous Woodland	S4
Upland Flatwoods	S2
Bottomland Flatwoods	S 1
Sinkhole Flatwoods	S2
Dry-Mesic Bottomland Woodland	S2
Mesic Bottomland Woodland	SH
Wet-Mesic Bottomland Woodland	S 1
SAVANNA Dry-Mesic Loess/Glacial Till Savanna Mesic Loess/Glacial Till Savanna Limestone/Dolomite Savanna Chert Savanna Sandstone/Shale Savanna	S1 SH SH SH SH
Sand Savanna	S11
	31
PRAIRIE Dry Loess/Glacial Till Prairie	S2
Dry-Mesic Loess/Glacial Till Prairie	S1
Mesic Loess/Glacial Till Prairie	S1
Dry Limestone/Dolomite Prairie	S2
Dry-Mesic Limestone/Dolomite Prairie	S2
Dry-Mesic Chert Prairie	S3
Dry-Mesic Sandstone/Shale Prairie	S3
Sand Prairie	S1
Prairie Swale	S2
Hardpan Prairie	S2
Wet-Mesic Bottomland Prairie	S 1
Wet Bottomland Prairie	S1
GLADE	
Limestone Glade	S2
Dolomite Glade	S3
Chert Glade	S2
Sandstone Glade	S2

COMMUNITY TYPE GLADE (Cont.)	<u>SRANK</u>
Igneous Glade	S3
CLIFF/TALUS	
Dry Limestone/Dolomite Cliff	S5
Moist Limestone/Dolomite Cliff Dry Sandstone Cliff	S4 S3
Moist Sandstone Cliff	S3
Dry Chert Cliff	S3
Moist Chert Cliff	S2
Dry Igneous Cliff	S4
Moist Igneous Cliff	S4
Unconsolidated Bluff	S3
Limestone/Dolomite Talus	S4
Igneous Talus	S4
STREAM EDGE	
Sand Bar	S3
Gravel Wash	S3
Stream Bank/River Bank	S2
WETLAND	
Marsh	S2
Shrub Swamp	S2
Swamp	S1
Pond Marsh	S1
Pond Swamp	S2 S1
Pond Swamp Ozark Fen	S1 S2
Prairie Fen	S2 S2
Forested Fen	S2
Glacial Fen	S 1
Acid Seep	S2
Saline Seep	S1
Limestone/Dolomite Spring	S3
CAVE	
Cave	S4
Cave Spring	S4
Spring	S4

THREATENED AND ENDANGERED SPECIES IN MISSOURI

SCIENTIFIC NAME	COMMON NAME	STATE ¹ STATUS	FEDERAL ² STATUS
PLANTS			
Asclepias meadii	Mead's Milkweed	Endangered	Threatened
Boltonia decurrens	Decurrent False Aster	Endangered	Threatened
Geocarpon minimum	Geocarpon	Endangered	Threatened
Helenium virginicum	Virginia sneezeweed	Endangered	Threatened
Isotria medeoloides	Small Whorled Pogonia ³	Endangered	Threatened
Lesquerella filiformis	Missouri Bladder-Pod	Endangered	Threatened
Lindera melissifolium	Pondberry	Endangered	Endangered
Platanthera leucophaea	E. Prairie Fringed Orchid ³	Endangered	Threatened
Platanthera praeclara	W. Prairie Fringed Orchid	Endangered	Threatened
Trifolium stoloniferum	Running Buffalo Clover	Endangered	Endangered
MOLLUSKS			
Antrobia culveri	Tumbling Creek Cavesnail	Endangered	Endangered
Elliptio crassidens	Elephantear	Endangered	
Epioblasma florentina curtisii	Curtis Pearlymussel ³	Endangered	Endangered
Epioblasma triquetra	Snuffbox	Endangered	Lindangered
Fusconaia ebena	Ebonyshell	Endangered	
Lampsilis rafinesqueana	Neosho Mucket	Endangered	Candidate
Lampsilis abrupta	Pink Mucket	Endangered	Endangered
Lampsilis higginsii	Higgins Eye ³	Endangered	Endangered
Leptodea leptodon	Scaleshell	Endangered	Endangered
Plethobasus cyphyus	Sheepnose	Endangered	Lindangered
Potamilus capax	Fat Pocketbook	Endangered	Endangered
Quadrula fragosa	Winged Mapleleaf ³	Endangered	Endangered
INSECTS			
Nicrophorus americanus	American Burying Beetle ³	Endangered	Endangered
Somatochlora hineana	Hine's Emerald Dragonfly	Endangered	Endangered
Somatoentora nineana	Time's Emerate Dragonity	Liidangered	Lituangerea
FISH	G G .1.		G 111
Cottus sp.	Grotto Sculpin	D 1	Candidate
Acipenser fulvescens	Lake Sturgeon	Endangered	
Amblyopsis rosae	Ozark Cavefish	Endangered	Threatened
Crystallaria asprella	Crystal Darter	Endangered	G 111
Etheostoma cragini	Arkansas Darter	F 1	Candidate
Etheostoma fusiforme	Swamp Darter	Endangered	
Etheostoma histrio	Harlequin Darter	Endangered	
Etheostoma nianguae	Niangua Darter	Endangered	Threatened
Etheostoma parvipinne	Goldstripe Darter	Endangered	
Etheostoma whipplei	Redfin Darter	Endangered	
Forbesichthys agassizi	Spring Cavefish	Endangered	
Hybognathus hayi	Cypress Minnow	Endangered	
Notropis maculatus	Taillight Shiner	Endangered	
Notropis sabinae	Sabine Shiner	Endangered	
Notropis topeka	Topeka Shiner	Endangered	Endangered
Noturus eleutherus	Mountain Madtom	Endangered	
Percina nasuta	Longnose Darter	Endangered	
Platygobio gracilis	Flathead Chub	Endangered	
Scaphirhynchus albus	Pallid Sturgeon	Endangered	Endangered
Umbra limi	Central Mudminnow	Endangered	
Noturus placidus	Neosho Madtom	Endangered	Threatened

COMMON NAME AMPHIBIANS	SCIENTIFIC NAME	STATE ¹ STATUS	FEDERAL ² STATUS
Cryptobranchus a. alleganiensis	Eastern Hellbender	Endangered	
Cryptobranchus a. bishopi	Ozark Hellbender	Endangered	Candidate
REPTILES			
Deirochelys reticularia miaria	Western Chicken Turtle	Endangered	
Elaphe vulpina vulpina	Western Fox Snake	Endangered	
Emydoidea blandingii	Blanding's Turtle	Endangered	
Kinosternon f. flavescens	Yellow Mud Turtle	Endangered	
Kinosternon f. spooneri	Illinois Mud Turtle	Endangered	
Nerodia cyclopion	MS Green Water Snake ³	Endangered	
Sistrurus c. catenatus	Eastern Massasauga	Endangered	Candidate
BIRDS			
Aimophila aestivalis	Bachman's Sparrow	Endangered	
Botaurus lentiginosus	American Bittern	Endangered	
Circus cyaneus	Northern Harrier	Endangered	
Egretta thula	Snowy Egret	Endangered	
Falco peregrinus	Peregrine Falcon	Endangered	
Haliaeetus leucocephalus	Bald Eagle	Endangered	Threatened
Limnothlypis swainsonii	Swainson's Warbler	Endangered	
Rallus elegans	King Rail	Endangered	
Sterna antillarum athalassos	Interior Least Tern	Endangered	Endangered
Tympanuchus cupido	Greater Prairie-Chicken	Endangered	-
Tyto alba	Barn Owl	Endangered	
MAMMALS			
Canus lupus	Gray Wolf		Threatened
Corynorhinus townsendii ingens	Ozark Big-Eared Bat ³	Endangered	Endangered
Lepus californicus	Black-Tailed Jackrabbit	Endangered	3
Myotis grisescens	Gray Bat	Endangered	Endangered
Myotis sodalis	Indiana Bat	Endangered	Endangered
Puma concolor	Mountain Lion	Endangered	2
Spilogale putorius	Spotted Skunk	Endangered	
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¹ Listed in the Wildlife Code of Missouri, Rule 3 CSR10-4, 111 Endangered Species.

²Federally Listed Species under the Endangered Species Act (ESA) of 1973 as Amended:

<u>Endangered</u> = Any species that is in danger of extinction throughout all or a significant portion of its range.

<u>Threatened</u> = Any species that is likely to become endangered within the foreseeable future.

<u>Candidate</u> = Plants or animals that the U.S. Fish & Wildlife Service is reviewing for possible addition to the list of Endangered and Threatened species.

<u>Proposed</u> = Any species proposed for listing as Threatened or Endangered by the U.S. Fish & Wildlife Service.

³Considered extirpated, historical or accidental occurrence in Missouri.

SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATE STATUS	FEDERAL STATUS
LICHENS					
Cladonia cervicornis ssp. verticillata	A Lichen	S?	G4G5TNR		
Cladonia leporina	A Lichen	S2	G4G5		
Collema nigrescens	A Lichen	SU	G3G5		
Dendriscocaulon intricatulum	A Lichen	S?	G2G4		
Dermatocarpon moulinsii	A Lichen	S1	GNR		
Dibaeis absoluta	A Lichen	S1	G4		
Flavoparmelia rutidota	A Lichen	S?	GNR		
Graphina sophisticascens	A Lichen	SH	GNR		
Imshaugia aleurites	A Lichen	S?	G5		
Lecidea lurida	A Lichen	SU	GNR		
Pannaria rubiginosa	A Lichen	S1	G4?		
Parmelia squarrosa	A Lichen	S?	G5		
Parmelina horrescens	A Lichen	S1	G5		
Parmotrema hypoleucinum	A Lichen	S1	GNR		
Parmotrema madagascariaceum	A Lichen	S?	G3G5		
Parmotrema tinctorum	A Lichen	S2	G5?		
Pseudocyphellaria aurata	A Lichen	S1	G3G5		
Psora icterica	A Lichen	S1	G5?		
Psora tuckermanii	A Lichen	SRF	G5		
Pycnothelia papillaria	A Lichen	S1	G3G5		
Ramalina intermedia	A Lichen	S1	G4G5		
Rimelia subisidiosa	A Lichen	S1	G4G5		
Tuckermannopsis ciliaris	A Lichen	S?	G3G5		
Usnea angulata	A Lichen	S1	G2G3		
Xanthoparmelia australasica	A Lichen	S1	G5		
Xanthoparmelia tinctina	A Lichen	SRF	G5		
LIVERWORTS AND HORNWORTS					
Aneura maxima	A Liverwort	SU	GNR		
Aneura pinguis	A Liverwort	SU	G5		
Anthoceros punctatus	A Hornwort	S?	G5		
Bazzania trilobata	A Liverwort	S1	G5		
Kurzia setacea	A Liverwort	S1	G4G5		
Kurzia sylvatica	A Liverwort	S1	G5		
Marchantia aquatica Marsupella sphacelata	A Liverwort A Liverwort	SU S1	GNR G5		
Metzgeria conjugata	A Liverwort	S1S2	G5		
Metzgeria furcata	A Liverwort	S?	G5		
Nardia lescurii	A Liverwort	S?	G3?		
Notothylas orbicularis	A Hornwort	S1	G5.		
Nowellia curvifolia	A Liverwort	S?	G5		
Phaeoceros oreganus	A Hornwort	S1	GNRQ		
Preissia quadrata	A Liverwort	S?	GTARQ G5		
Ptilidium pulcherrimum	A Liverwort	S1	G5		
Rectolejeunea maxonii	A Liverwort	S1	G3 G4		
Riccardia multifida	A Liverwort	S1 S1	G5		
Riccardia palmata	A Liverwort A Liverwort	S1 SU	G5 G3G5		
Riccia stenophylla Riccia sullivantii					
Kiccia sumvanui	A Liverwort	S?	G4Q		

SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATE STATUS	FEDERAL STATUS
MOSSES					
Acaulon muticum var. rufescens	A Moss	S?	G4G5T4		
Anomobryum filiforme	A Moss	S1	G4		
Archidium alternifolium	A Moss	S1	G4G5		
Barbula convoluta var. convoluta	A Moss	S?	G5TNR		
Brachelyma subulatum	A Moss	S1	G4G5		
Bruchia flexuosa	A Moss	S?	G4		
Bryoxiphium norvegicum	Sword Moss	S1	G5?		
Bryum algovicum var. algovicum	A Moss	S1	G4G5TNR		
Bryum cyclophyllum	A Moss	S?	G4G5		
Bryum klinggraeffii	A Moss	S?	G4G5		
Bryum miniatum	A Moss	S1	G3G4		
Bryum subapiculatum	A Moss	SX	G5?		
Bryum uliginosum	A Moss	S1	G3G5		
Calliergonella cuspidata	A Moss	S?	G5		
Campylium polygamum	A Moss	S1	G5		
Campylium protensum	A Moss	SU	G5T3T5		
Campylium radicale	A Moss	SU	G3G5		
Campylium stellatum var. stellatum	Yellow Starry Fen Moss	SU	G5T5		
Campylopodiella stenocarpa	A Moss	S1	G5		
Campylopus tallulensis	A Moss	S1	G4		
Dichelyma capillaceum	A Moss	S1	G5		
Dicranella rufescens	A Moss	S1S2	G5?		
Dicranum polysetum	A Moss	S1	G5		
Didymodon revolutus	A Moss	S1	G4		
Didymodon rigidulus var. gracilis	A Moss	S?	G5T5?		
Didymodon rigidulus var. rigidulus	A Moss	S1	G5T4?		
Encalypta procera	Extinguisher Moss	S1	G4G5		
Ephemerum cohaerens	Emerald Dewdrops	S1	G4G5		
Ephemerum crassinervium var. crassiner	A Moss	S?	G5T4		
Ephemerum serratum	A Moss	SU	G5		
Ephemerum spinulosum	Emerald Dewdrops	S?	G4G5		
Fontinalis sullivantii	A Moss	S1	G3G5		
Forsstroemia producta	A Moss	S1	G5?		
Grimmia olneyi	A Moss	S?	G3G5		
Grimmia ovalis	A Moss	SRF	G5?		
Grimmia teretinervis	A Moss	S1	G3G5		
Helodium paludosum	A Moss	S1	G3G5		
Homaliadelphus sharpii	Sharp's Homaliadelphus	S1	G3?		
Hypnum cupressiforme var. filiforme	A Moss	S1	G5TNR		
Hypnum imponens	A Moss	S?	G5		
Hypnum pallescens	A Moss	S1	G5		
Isopterygiopsis muelleriana	A Moss	S1	G5		
Leskea australis	A Moss	S1	G4		
Leskea polycarpa var. polycarpa	A Moss	S?	G4G5TNR		
Leucodon brachypus var. brachypus	A Moss	SRF	G5T5		

SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATE STATUS	FEDERAL STATUS
Micromitrium megalosporum	A Moss	S1S2	G4	SIAIUS	SIAIUS
Mnium thomsonii	A Moss	S?	G5		
Myurella sibirica	A Moss	S?	G4?		
Neckera besseri	A Moss	S1	G5		
Orthotrichum anomalum	A Moss	S?	G4G5		
Orthotrichum diaphanum	A Moss	S?	G5		
Orthotrichum elegans	A Moss	S1	G5		
Physcomitrella patens	A Moss	S1S2	G4		
Physcomitrium collenchymatum	A Moss	S1	G2G4		
Plagiomnium ellipticum	A Moss	S?	G5		
Plagiomnium rostratum	A Moss	S1	G5		
Plagiothecium denticulatum	A Moss	S1	G5		
Platylomella lescurii	A Moss	S?	G5		
Polytrichum piliferum	A Hair Cap Moss	S1	G5		
Pseudotaxiphyllum distichaceum	A Moss	S?	G4G5		
Ptychomitrium sinense	A Moss	S1	G4G5		
Pyramidula tetragona	A Moss	S?	G3G5		
Rhabdoweisia crispata	A Moss	S1	G5		
Rhytidiadelphus triquetrus	Shaggy Moss	S?	G5		
Rhytidium rugosum	Golden Glade-moss	S1	G5		
Scopelophila ligulata	Copper Moss	SRF	G5?		
Seligeria calcarea	A Moss	S?	G4?		
Seligeria donniana	A Moss	S1	G4G5		
Seligeria pusilla	A Moss	S1	G3G5		
Sematophyllum marylandicum	A Moss	S1	G5		
Sphagnum affine	Sphagnum	S1	G5		
Sphagnum angustifolium Sphagnum bartlettianum	Narrowleaf Peatmoss Sphagnum	S1 SU	G5 GNR		
Sphagnum capillifolium	Northern Peatmoss	S1	GNK G5		
Sphagnum centrale	Sphagnum	S1S2	G5		
Sphagnum cuspidatum	Sphagnum	SRF	G5		
Sphagnum fallax	Sphagnum	SRF	G5		
Sphagnum fimbriatum var. fimbriatum	Sphagnum	S1	GNR		
Sphagnum girgensohnii	Sphagnum	SRF	G5		
Sphagnum henryense	Sphagnum	S1	GNR		
Sphagnum inundatum	Sphagnum	S1	GNR		
Sphagnum margaritae	Peatmoss	S?	GNR		
Sphagnum recurvum	Sphagnum	S1	G5		
Sphagnum russowii	Sphagnum	SRF	G5		
Sphagnum subtile	Sphagnum	SRF	G5?Q		
Sphagnum tenerum	Sphagnum	SRF	G5		
Sphagnum trinitense	Sphagnum	S1	GNR		
Syrrhopodon texanus	A Moss	S1	G5		
Thamnobryum alleghaniense	A Moss	S1	G5?		
Tortula papillosa	A Moss	S?	G5		
Trematodon longicollis	A Moss	S1	G5		
Zygodon apiculatus	A Moss	S1	GU		

SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATE STATUS	FEDERAL STATUS
FERNS AND FERN ALLIES					
Asplenium montanum	Mountain Spleenwort Few-lobed Grape	SH	G5		
Botrychium biternatum	Fern	S1	G5		
Cheilanthes alabamensis	Alabama Lip-fern	S1	G4G5		
Cheilanthes tomentosa	Woolly Lip-fern	S1	G5		
Cystopteris tenuis	A Bladderfern	S1	G4G5		
Dennstaedtia punctilobula	Hay-scented Fern	S2	G5		
Dryopteris carthusiana	Spinulose Shield Fern	S2	G5		
Dryopteris celsa	Log Fern	S1	G4		
Dryopteris cristata	Crested Fern	S1	G5		
Dryopteris goldiana	Goldie's Fern	S2	G4		
Dryopteris intermedia	Evergreen Woodfern	S1	G5		
Equisetum pratense	Meadow Horsetail	SRF	G5		
Huperzia porophila	Fir Clubmoss	S2	G4		
Isoetes engelmannii var. engelmannii	Engelmann's Quillwort Round-branched	S1?	G4TNR		
Lycopodium dendroideum	Ground Pine	S1	G5		
Lycopodium digitatum	A Clubmoss	S2	G5		
Lycopodium tristachyum	Ground Cedar	S1	G5		
Marsilea mucronata Matteuccia struthiopteris var.	Marsilea	SRF	G5Q		
pensylv	Ostrich Fern Bulbous Adder's-	S2	G5T5		
Ophioglossum crotalophoroides	tongue Stalked Adder's-	S1	G5		
Ophioglossum petiolatum	tongue	SX	G5		
Pellaea glabella var. missouriensis	Missouri Cliffbrake	S1S2	G5T1T2		
Pilularia americana	American Pillwort	SU	G5		
Woodsia obtusa ssp. occidentalis	Blunt-lobe Woodsia	S1	G5TNR		
Woodwardia areolata	Netted Chain Fern	S2	G5		
FLOWERING PLANTS					
	Large Seeded				
Acalypha deamii	Mercury	SH	G4?		
Aconitum uncinatum Agalinis auriculata	Southern Monkshood Auriculate False Foxglove	S1 S2	G4 G3		
-	Prairie False				
Agalinis heterophylla Agalinis purpurea	Foxglove Purple False Foxglove	S1 S2	G4G5 G5		
•	_				
Agalinis skinneriana	Pale Gerardia	S3	G3		
Agalinis viridis	Green False Foxglove	S1 SU	G4?		
Agrimonia gryposepala Allium burdickii	Tall Agrimony		G5		
Allum burdickii Alopecurus aequalis	Wild Leek Floating Foxtail Grass	S2 S2	G4G5 G5		
Ammannia auriculata	Wright Ammannia	SRF	G5		
Amsonia ciliata var. filifolia	Ciliate Blue Star	S2S3	G5?T4?		
Anemone cylindrica	Thimbleweed	S253	G5: 14:		
Anemone quinquefolia	Wood Anemone	S1	G5		
Arabis glabra	Tower Mustard	S1	G5		
Aralia nudicaulis	Wild Sarsaparilla	S1 S2	G5		
rialia liuuleaulis	w nu Sarsaparma	52	G5		

Arenaria lateriflora	Grove Sandwort	S2S3	G5		
Aristida adscensionis	Sixweeks Three-awn	SH	G5		
Aristida desmantha	Curly Three-awn	S1	G5	STATE	FEDERAL
SCIENTIFIC NAME	COMMON NAME Woollyleaf Three-	SRANK	GRANK	STATUS	STATUS
Aristida lanosa	awn	S1	G5		
Armoracia lacustris	Lake Cress	S2	G4?		
Aronia melanocarpa	Black Chokeberry	S1	G5		
Artemisia dracunculus ssp. glauca	A Wormwood	SH	G5T4T5Q		
Asclepias meadii	Mead's Milkweed	S2	G2	E	T
Asclepias speciosa	Showy Milkweed	SA	G5		
Aster brachyactis	Rayless Alkali Aster	SH	G5T5		
Aster dumosus var. strictior	Tradescant Aster	S2	G5T4		
Aster fragilis var. fragilis	Small White Aster	S1	G4G5TNRQ		
Aster furcatus	Forked Aster	S2	G3		
Aster macrophyllus	Big-leaved Aster Flat-topped White	S2	G5		
Aster pubentior	Aster	S1	G5		
Aster subulatus var. ligulatus	Saltmarsh Aster	S2	G5T5		
Astragalus lotiflorus	Low Milk Vetch	S2	G5		
Astranthium integrifolium	Western Daisy	S2	G5		
Bartonia paniculata	Screwstem	S1	G5		
Bartonia virginica	Yellow Bartonia	S1	G5		
Berberis canadensis	American Barberry	S2	G3		
Bergia texana	Bergia Cut-leaved Water-	S2	G5		
Berula erecta	parsnip	S1	G4G5		
Bidens laevis Bolboschoenus maritimus ssp. paludosus	A Beggar's Tick Bayonet Grass	SH S1	G5 G5TNR		
Boltonia decurrens	Decurrent False Aster	S1	G2 G2	Е	T
		S1 S1	_	E	1
Bouteloua gracilis Bouteloua hirsuta	Blue Grama Hairy Grama	S1 S2	G5 G5		
Bromus ciliatus	Fringed Brome	SRF	G5		
Bromus latiglumis	A Brome	S2S3	G5		
Bromus nottowayanus	Satin Brome	S2S3	G3 G3G4		
Buchloe dactyloides	Buffalo Grass	S2S3	G4G5		
Calamagrostis porteri ssp. insperata	Oferhollow Reed Grass	S3	G4T3		
Calamagrostis stricta ssp. inexpansa	Northern Reedgrass	S2S3	G5T5		
Calamovilfa longifolia var. longifolia	Long-leaved Reed Grass	SH	G5T5		
Callicarpa americana	French Mulberry	S11	G513		
Callirhoe bushii	Bush's Poppy Mallow	S2	G3		
Callirhoe triangulata	Clustered Poppy Mallow	SH	G3		
Calopogon tuberosus	Grass Pink Orchid	S2	G5		
Caltha palustris	Marsh Marigold	S1	G5		
Camassia angusta	A Wild Hyacinth	S3	G5?Q		
Campanula aparinoides	Marsh Bellflower	S1	G5		
Campanula rotundifolia	Harebell	S1	G5		
Carex abscondita	A Sedge	S1	G4G5		
Carex alata	Broadwing Sedge	S2S3	G5		
Carex albicans var. australis	Bellow Beaked Sedge	S1	G5T5		
Carex albolutescens	Greenish-white Sedge	S1S2	G5		
Carex aquatilis var. aquatilis	Water Sedge	SRF	G5T5		
Carex aquatilis var. substricta	A Sedge	S1	G5TNR		
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Carex arkansana	A Sedge	S3	G4		
Carex atherodes	Awned Sedge	S1	G5		
Carex atlantica ssp. atlantica	A Sedge	S1	G5T4		
Carex bromoides	A Sedge	S2	G5		
Carex buxbaumii	Brown Bog Sedge	S2	G5		
	G0101011111	CD 1377	GD ANW	STATE	FEDERAL
SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATUS	STATUS
Carex cherokeensis	Cherokee Sedge	S2	G4G5		
Carex communis	Fibrous-root Sedge	S1	G5		
Carex comosa	Bristly Sedge	S2	G5		
Carex conoidea	Field Sedge	S1	G5		
Carex debilis var. debilis	White-edge Sedge	S1	G5T5		
Carex debilis var. rudgei	White-edge Sedge	SRF	G5T5		
Carex decomposita	Epiphytic Sedge	S3	G3		
Carex fissa var. fissa	A Sedge	S1	G3G4QT3?		
Carex flaccosperma	A Sedge	S1	G5		
Carex gigantea	Giant Sedge	S1S2	G4		
Carex gracillima	Graceful Sedge Cypress-swamp	S1	G5		
Carex joorii	Sedge	SH	G4G5		
Carex lacustris	Lake-bank Sedge	S2	G5		
Carex laxiculmis	Spreading Sedge	S2	G5		
Carex laxiflora var. laxiflora	A Carex	S1	G5T5		
Carex longii	Greenish-white Sedge	S1	G5		
Carex microdonta	A Sedge	S1	G4		
Carex molestiformis	A Sedge	S2	GNR		
Carex nigromarginata var. floridana	A Sedge	S1	G4G5T5?		
Carex oklahomensis	Oklahoma Sedge	S2	G4		
Carex oxylepis	Sharp-scale Sedge	S2	G5?		
Carex prasina	Drooping Sedge	S1	G4		
Carex reniformis	Reniform Sedge	S1	G4?		
Carex sartwellii	Sartwell's Sedge	S1	G4G5		
Carex scabrata	Rough Sedge	SH	G5		
Carex socialis	A Sedge	S2	G4		
Carex sprengelii	Longbeak Sedge	S1	G5?		
Carex sterilis	A Sedge	S1	G4		
Carex straminea	Straw Sedge	S1	G5		
Carex stricta	Tussock Sedge	S2?	G5		
Carex sychnocephala	A Sedge	S1	G4		
Carex tenera var. echinodes	A Sedge	SH	G5TNRQ		
Carex tetanica	Rigid Sedge	S1	G4G5		
Carex texensis	A Sedge	S1	G5		
Carex timida	Timid Sedge	S1S2	G2G3		
Carex tonsa	Shaved Sedge	SH	G4G5		
Carex triangularis	Triangular Sedge	S1	G5		
Carex trichocarpa	Hairy-fruited Sedge	S1	G4		
Carex vesicaria var. monile	A Sedge	S2?	G5T4		
Carex willdenowii	Willdenow's Sedge	S1?	G5		
Carex woodii	Wood's Sedge	SRF	G4		
Carya glabra var. glabra	Pignut Hickory	SU	G5T5		
Carya pallida	Sand Hickory	S2S3	G5		
Castanea pumila var. ozarkensis	Ozark Chinquapin	S2	G5T3		
Castilleja purpurea var. purpurea	Purple Paintbrush	SH	G5TNR		
Castilleja sessiliflora	Downy Painted Cup	S2	G5		
Cayaponia grandifolia	A Gourd	S1	G4		
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Centrosema virginianum	Coastal Butterfly-pea	SU	G5
Ceratophyllum echinatum	Coontail	S1?	G4?

GOVERNMENT AND THE	CONTRACTOR	CD ANT	CD ANIX
SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK
Chaetopappa asteroides	Common Leastdaisy	S2S3	G5
Chamaesyce geyeri	Geyer's Spurge	S1	G5
Chasmanthium laxum ssp. laxum	Slender Spike Grass	S1	G5TNR
Chasmanthium laxum ssp. sessiliflorum	A Spike Grass	SH	G5T5
Chelone obliqua var. speciosa	Rose Turtlehead	S2	G4T3
Chenopodium strictum var. glaucophyllu	A Goosefoot	SH	G5TU
Cissus incisa	Marine Vine	S2	G3G5
Clematis fremontii	Fremont's Leather Flower	S3	G5
Clematis viorna	A Leatherflower	S1	G5
Cleome serrulata	Rock Mountain Bee Plant	SH	G5
Coeloglossum viride var. virescens	Long-bracted Orchid	S1	G5T5
Coelorachis cylindrica	Joint Grass	S1	G4G5
Conyza canadensis var. pusilla	Fleabane	S1S2	G5T5
Corallorhiza trifida var. verna	Early Coral Root	SRF	G5TNRQ
Corispermum hyssopifolium	A Bugseed	SH	GU
Corispermum orientale	Oriental Tick-seed	SU	GU
Corydalis micrantha ssp. australis	A Corydalis	S2	G5T5?
Crataegus marshallii	Parsley Haw	S1	G5
Crataegus spathulata	A Hawthorn	S1	G5
Crotonopsis linearis	Narrowleaf Rushfoil	S1	G5
Cynosciadium digitatum	Finger Dog-shade	S2	G4G5
Cyperus compressus	Coco Grass	SU	G5
Cyperus croceus	Baldwin's Cyperus	S1	G5
Cyperus diandrus	Umbrella Flatsedge	S1	G5
Cyperus flavicomus	An Umbrella Sedge	S1	G5
Cyperus grayoides	An Umbrella Sedge	S2	G3
Cyperus hystricinus	Flatsedge	S1	G4
Cyperus plukenetii	Plukenet's Cyperus	S1	G5
Cyperus polystachyos var. texensis	Many-spiked Cyperus	S2	G5T5
Cyperus retroflexus	Umbrella Sedge	S1	G5
Cyperus retrofractus	Teasel-like Cyperus	S1S2	G5
Cyperus retrorsus	An umbrella sedge	SH	GNR
Cyperus schweinitzii	Schweinitz's Flatsedge	S3	G5
Cyperus setigerus	Bristled Cyperus	S1	G3G5
Cypripedium candidum	Small White Lady-slipper	S1	G4
Cypripedium reginae	Showy Lady-slipper	S2S3	G4
Dalea enneandra	Nine-anther Dalea	S2	G5
Dalea gattingeri	Gattinger Prairie-clover	S1	G3G4
Dalea multiflora	Round-headed Prairie Clover	SH	G5
Decodon verticillatus	Swamp Loosestrife	S1	G5
Delphinium exaltatum	Tall Larkspur	S2	G3
Descurainia pinnata ssp. pinnata	Tansy Mustard	SH	G5T5
Desmodium nuttallii	Nuttall Tick-trefoil	S3	G5
Desmodium ochroleucum	Creamflower Tick Trefoil	SH	G2?
Desmodium strictum	Pineland Tick Trefoil	S1	G4
Desmodium viridiflorum	Velvety Tick Trefoil	S1	G5?
Diarrhena americana	American Beakgrain	S1	G4?
Dichondra carolinensis	Pony-foot Grass	S1	G5
Distichlis spicata var. spicata	Seashore Salt Grass	S1	G5TNR

SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATE STATUS	FEDERAL STATUS
Dodecatheon amethystinum	Amethyst Shooting Star	S2	G4	5111105	5111105
Dodecatheon frenchii	French's Shooting Star	S1	G3		
Dracopis amplexicaulis	Clasping Leaved Coneflower	S1?	G5		
Echinacea angustifolia var. angustifol	Narrow-leaved Coneflower	S1	G4T4		
Echinochloa walteri	A Barnyard Grass	S1	G5		
Echinodorus tenellus var. parvulus	Dwarf Burhead	S1	G3T3		
Elatine triandra	Waterwort	SH	G5		
Eleocharis atropurpurea	A Spike Rush	S1	G4G5		
Eleocharis equisetoides	Horsetail Spike Rush	SH	G4		
Eleocharis lanceolata	Lance-like Spike Rush	S1	G4G5		
Eleocharis wolfii	Wolf's Spike Rush	S3	G3?		
Elodea canadensis	Broad Waterweed	SU	G5		
Elymus diversiglumis	Wild Rye	SH	G3?Q		
Epifagus virginiana	Beech Drops	S2	G5		
Epilobium leptophyllum	Willow Herb	S1	G5		
Eragrostis glomerata	A Love Grass	S1	G3G5		
Eragrostis reptans	Creeping Love Grass	S1	G5		
Erianthus giganteus	Plume Grass	S1	G5		
Erianthus strictus	Narrow Plumegrass	SH	G5		
Eriogonum longifolium var. longifolium	Umbrella Plant	S2	G4T4		
Erysimum capitatum var. capitatum	Western Wallflower	S3?	G5T5		
Euonymus americanus	Strawberry Bush	S2	G5		
Eupatorium maculatum	Spotted Joe-pye Weed	S1	G5		
Eupatorium rotundifolium var. scabridu	A Thoroughwort	S1?	G5TNR		
Eupatorium semiserratum	A Thoroughwort	S1S2	G5		
Festuca sororia	A Fescue	SH	G4		
Filipendula rubra	Queen of the Prairie	S2	G4G5		
Fimbristylis littoralis var. littorali	A Fimbristylis	S1?	G3G5TNR		
Fimbristylis miliacea	A Fimbristylis	SRF	G5		
Floerkea proserpinacoides	False Mermaid	SU	G5		
Fragaria vesca var. americana	Woodland Strawberry	S1	G5T5		
Fuirena simplex var. aristulata	An Umbrella Grass	S2?	G5TNR		
Gaillardia aestivalis var. flavovirens	A Blanket Flower	SH	G5TNR		
Galium boreale ssp. septentrionale	Northern Bedstraw	S2	G5TNR		
Gaura coccinea var. coccinea	Scarlet Gaura	S1	G5TNR		
Gaylussacia baccata	Black Huckleberry	S1	G5		
Gentiana andrewsii var. andrewsii	Closed Gentian	S1	G5?T5?		
Geocarpon minimum	Geocarpon	S2	G2	E	T
Geum virginianum	Pale Avens	S1	G5		
Gillenia trifoliata	Indian Physic	SH	G4G5		
Glyceria acutiflora	Sharp-scaled Manna Grass	S3	G5		
Glycyrrhiza lepidota var. lepidota	Wild Licorice	SH	G5TNR		
Gratiola viscidula	Hedge Hyssop	S1	G4G5		
Hedyotis boscii	A Bluet	S1	G5		
Hedyotis uniflora	Clustered Bluets	S1	G5		
Helenium virginicum	Virginia Sneezeweed	S1	G2	E	T
Helianthemum canadense	A Rockrose	SU	G5		
Helianthus angustifolius	Swamp Sunflower	S2	G5		
Heliotropium curassavicum	Seaside Heliotrope	S1	G5		

				STATE	FEDERAL
SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATUS	STATUS
Heterotheca canescens	Hoary Golden Aster	SH	G5?		
Heuchera parviflora var. parviflora	Little Leaved Alum Root	S1	G4T4		
Hottonia inflata	Featherfoil	S2	G4		
Hydrocotyle verticillata var. verticil	Water Pennywort	S1	G5T5		
Hydrolea ovata	Ovate Fiddleleaf	S2	G5		
Hypericum adpressum	Creeping St. John's-wort	S1	G2G3		
Hypericum canadense	Canadian St. John's-wort	SRF	G5		
Hypericum densiflorum	Bushy St. John's-wort	SRF	G5		
Hypericum lobocarpum	A St. John's Wort	SH	G4Q		
Hypericum majus	Greater St. John's-wort	SH	G5		
Hypericum pyramidatum	Great St. John's-wort	S1	G4		
Ilex verticillata var. padifolia	Winterberry	S3	G5TNR		
Isolepis molestus	Gulf Coast Bulrush	SH	G4?		
Isotria medeoloides	Small Whorled Pogonia	SH	G2	E	T
Isotria verticillata	Large Whorled Pogonia	S1S2	G5		
Iva xanthifolia	A Marsh Elder	S1	G5		
Juneus alpinoarticulatus	Richardson Rush	SH	G5		
Juncus balticus var. littoralis	Baltic Rush	S1	G5T5		
Juncus brachyphyllus	Small-headed Rush	SH	G5		
Juncus bufonius var. bufonius	Toad Rush	S1	G5T5		
Juncus canadensis var. canadensis	Canada Rush	S1	G5T5		
Juncus debilis	Weak Rush	S1	G5		
Juncus nodosus	Knotted Rush	SH	G5		
Juncus validus	A Rush	S1	G5		
Justicia ovata	A Water Willow	S2	G5		
Lactuca hirsuta	Hairy Lettuce	SU	G5?		
Lactuca ludoviciana	Western Lettuce	SH	G4G5		
Lactuca tatarica ssp. pulchella	Blue Lettuce	S1	G5T5		
Lathyrus pusillus	A Wild Pea	SH	G5?		
Lechea racemulosa	Illinois Pinweed	SH	G5		
Leitneria floridana	Corkwood	S2	G3		
Lemna obscura	A Duckweed	SU	G5		
Lemna trisulca	Star Duckweed	S2	G5		
Lemna turionifera	A Duckweed	SH	G5		
Lesquerella filiformis	Missouri Bladder-pod	S3	G3	E	E
Liatris punctata var. nebraskana	A Blazing Star	S3	G5T3T5		
Liatris scariosa var. nieuwlandii	A Blazing Star	S2	G5?T3T5		
Liatris spicata	Button Snakeroot	SX	G5		
Lilium philadelphicum var. andinum	Prairie Lily	S1	G5T4T5		
Lilium superbum	Turk's Cap Lily	S1	G5		
Limnobium spongia	American Frogbit	S2	G4		
Limnosciadium pinnatum	Pinnate Dogshade	S1	G5?		
Limosella aquatica	Mudwort	SH	G5		
Lindera melissifolium	Pondberry	S1	G2	Е	Е
Liparis loeselii	Loesel's Twayblade	S2	G5	_	_
Lipocarpha aristulata	Lipocarpha	SU	G5?		
Lipocarpha drummondii	A Lipocarpha	SH	G4G5		
Lobelia puberula var. mineolana	Downy Lobelia	SH	G5TNR		
Lomatium foeniculaceum ssp. foeniculac	Hairy Parsley	S1S3	G5T5		
Domatium formeutaceum ssp. formeutac	riany raisicy	5103	0313		

				STATE	FEDERAL
SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATUS	STATUS
Ludwigia leptocarpa	Primrose Willow	S2	G5		
Ludwigia microcarpa	A False Loosestrife	S2	G5		
Ludwigia repens	A False Loosestrife	SU	G5		
Lycopus asper	Bugle Weed	SH	G5		
Lygodesmia juncea	Skeleton Plant	S3	G5		
Lyonia mariana	Stagger Bush	SH	G5		
Lysimachia thyrsiflora	Tufted Loosestrife	S1	G5		
Malus angustifolia	Narrow-leaved Wild Crab	S1	G5?		
Malvastrum hispidum	Yellow False Mallow	S3	G3G5		
Marshallia caespitosa var. caespitosa	Barbara's Buttons	S3	G4T4		
Marshallia caespitosa var. signata	Barbara's Buttons	S1	G4T4		
Matelea obliqua	Climbing Milkweed	SR	G4?		
Mecardonia acuminata	Water Hyssop	S1	G5		
Medeola virginiana	Indian Cucumber-root	SH	G5		
Menyanthes trifoliata var. minor	Bogbean	S1	G5TNR		
Microseris cuspidata	Prairie Dandelion	S2	G5		
Mimulus glabratus var. fremontii	Roundleaf Monkey Flower	SH	G5T5		
Mitreola petiolata	Miterwort	S1	G5		
Monarda clinopodia	A Horsemint	SH	G5		
Monarda punctata var. occidentalis	Dotted Monarda	S2	G5T4T5		
Monarda punctata var. villicaulis	Horsemint	S2	G5TNR		
Najas flexilis	A Naiad	S1S2	G5		
Najas gracillima	Thread-like Naiad	S2	G5?		
Nemastylis geminiflora	Prairie Iris	S2	G4		
Neviusia alabamensis	Snow Wreath	SH	G2		
Nyssa biflora	Swamp Black Gum	SH	G5		
Obolaria virginica	Virginia Pennywort	S2	G5		
Oenothera clelandii	Evening Primrose	S2	G3G5		
Oenothera fruticosa ssp. fruticosa	Shrubby Sundrops	S1	G5T5		
Oenothera fruticosa ssp. glauca	Shrubby Sundrops	SH	G5T5		
Oenothera perennis	Small Sundrops	S1	G5		
Oenothera rhombipetala	An Evening Primrose	S1S2	G4G5		
Oenothera triloba	Stemless Evening Primrose	S2	G4		
Opuntia macrorhiza	Low Prickly Pear	S2	G5		
Opuntia polyacantha var. polyacantha	Starvation Cactus	SX	G5T5		
Orobanche ludoviciana	A Broomrape	S1	G5		
Orobanche multiflora	A Broomrape	S1	G5		
Oryzopsis racemosa	Black-seeded Mountain Rice	S1	G5		
Oxytropis lambertii	Locoweed	S2	G5		
Panicum acuminatum var. longiligulatum	A Panic Grass	SRF	G5T4T5		
Panicum dichotomum var. mattamuskeeten	A Panic Grass	SH	G5TNR		
Panicum dichotomum var. nitidum	A Panic Grass	S1	G5TNR		
Panicum dichotomum var. yadkinense	A Panic Grass	S1	G5T3T4Q		
Panicum hians	Gaping Panic Grass	S3	G5		
Panicum leibergii	A Panic Grass	SU	G5		
Panicum portoricense	A Panic Grass	S1	G5T5		
Panicum sabulorum	Hemlock Witchgrass	SRF	G5		
Panicum verrucosum	Warty Panicgrass	S1	G4		

				STATE	FEDERAL
SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATUS	STATUS
Paronychia virginica var. scoparia	Virginia Whitlow Wort	S1	G4T4Q		
Paspalum bifidum	Pitchfork Paspalum	S1	G5		
Paspalum dissectum	Mudbank Paspalum	SH	G4?		
Paspalum setaceum var. setaceum	Slender Paspalum	S1	G5T5		
Pediomelum argophyllum	Silvery Psoralea	S2	G5		
Peltandra virginica	Arrow Arum	S2	G5		
Penstemon cobaea var. cobaea	A Beard-tongue	S1	G4TNR		
Penstemon grandiflorus	Large Beard-tongue	S1	G5?		
Perideridia americana	Eastern Eulophus	SU	G4		
Philadelphus pubescens var. verrucosus	Mock Orange	S1	G5?TU		
Phlox amplifolia	Large-leaved Phlox	S3?	G3G5		
Phlox bifida ssp. stellaria	Bifid Phlox	S1	G5?T3		
Phlox carolina ssp. angusta	Carolina Phlox	SH	G5?TNR		
Phlox carolina ssp. carolina	Carolina Phlox	S1	G5?T3T5Q		
Phlox maculata ssp. pyramidalis	Wild Sweet William	S2	G5T4T5		
Phyla nodiflora	Fog Fruit	SH	G5		
Phyllanthus polygonoides	Knotweed Leaf-flower	S1	G5		
Physostegia intermedia	A False Dragonhead	S1	G5		
Plantago patagonica	Woolly Plantain	S2	G5		
Platanthera ciliaris	Yellow-fringed Orchid	S1	G5		
Platanthera clavellata	Green Wood Orchid	S2	G5		
Platanthera flava var. flava	Pale Green Orchid	S2	G4T4?Q		
Platanthera flava var. herbiola	Northern Rein Orchid	S2	G4T4Q		
Platanthera leucophaea	Eastern Prairie Fringed Orchid	SH	G2	Е	T
Platanthera praeclara	Western Prairie Fringed Orchid	S1	G2	Е	T
Platanthera psycodes	Small Purple-fringed Orchid	SX	G5		
Pluchea foetida	Marsh Fleabane	SH	G5		
Poa interior	Inland Bluegrass	S1	G5		
Pogonia ophioglossoides	Snake-mouth Orchid	S1	G5		
Polygonella americana	Jointweed	S2	G5		
Polygonum amphibium var. stipulaceum	Water Smartweed	S1	G5T5		
Polygonum arifolium	Halberd-leaved Tear Thumb	S1	G5		
Polygonum densiflorum	Dense-flower Smartweed	S1	G5		
Polygonum prolificum	Bushy Knotweed	SRF	G4G5		
Polygonum punctatum var. majus	Dotted Smartweed	SU	G4G5		
Polymnia laevigata	Smooth Leaf-cup	SX	G3		
Polypremum procumbens	Juniper-leaf	S2	G5		
Populus grandidentata	Big-toothed Aspen	S1	G5		
Populus tremuloides var. tremuloides	Quaking Aspen	S2	G5TNR		
Potamogeton epihydrus	Nuttall Pondweed	SH	G5		
Potamogeton pulcher	Spotted Pondweed	S2S3	G5		
Potamogeton pusillus var. pusillus	Slender Pondweed	S1	G5T5		
Potentilla nicolletii	Bushy Cinquefoil	SH	GNR		
Prenanthes racemosa	Rattlesnake Root	SH	G5		
Prionopsis ciliata	A Goldenweed	S1	G4G5		
Ptilimnium capillaceum	Mock Bishop's Weed	SH	G5		
Pycnanthemum muticum	Blunt Mountain Mint	S2	G5		
Pycnanthemum torrei	Torrey Mountain Mint	SH	G2		
Quercus ellipsoidalis	Northern Pin Oak	S1	G2 G4		
Zariono embounamo	W. O. I	62	0.		

S2

G5

Water Oak

Quercus nigra

				STATE	FEDERAL
SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATUS	STATUS
Quercus prinoides	Dwarf Chinquapin Oak	S3?	G5		
Quercus stellata var. margaretta	Sand Post Oak	SH	G5		
Quercus texana	Nuttall's Oak	S2	G4G5		
Ranunculus cymbalaria	Seaside Crowfoot	SH	G5		
Rhynchosia difformis	Double-formed Snoutbean	S1	G5?		
Rhynchospora harveyi	Harvey's Beak-rush	S1	G4		
Rhynchospora macrostachya	Horned Rush	S1	G4		
Ribes americanum	Gooseberry	S1	G5		
Rosa blanda	Smooth Rose	S1	G5		
Rosa virginiana	A Rose	SU	G5		
Rubus missouricus	Prickly Groundberry	SH	GHQ		
Rubus strigosus	Red Raspberry	SH	G5		
Rudbeckia grandiflora var. grandiflora	Rough Coneflower	S1	G5TNR		
Rumex orbiculatus	Water Dock	SRF	G5		
Ruppia maritima	Ditch Grass	S1	G5		
Sabatia brachiata	Marsh Pink	S1	G5?		
Sacciolepis striata	American Cupscale	S1	G5		
Sagittaria ambigua	Kansas Arrowhead	S1	G2?		
Sagittaria platyphylla	Ovate-leaved Arrowhead	SH	G5		
Salix discolor	Pussy Willow	S1	G5		
Salix eriocephala var. famelica	Diamond Willow	SU	G5TNR		
Salix petiolaris	Meadow Willow	S1	G5		
Sambucus canadensis var. laciniata	Elderberry	S1	G5TNRQ		
Sambucus racemosa ssp. pubens	Red-berried Elderberry	S1	G5T4T5		
Sanicula smallii	Black Snakeroot	SH	G5		
Sapindus drummondii	Soapberry	S2	G5T5		
Schoenoplectus americanus	Olney's Bulrush	SH	G5		
Schoenoplectus californicus	Giant Bulrush	S1	G5		
Schoenoplectus deltarum	Delta Bulrush	SH	G3G4		
Schoenoplectus etuberculatus	Canby's Bulrush	S1	G3G4		
Schoenoplectus hallii	Hall's Bulrush	S1	G2		
Schoenoplectus purshianus	Weakstalk Bulrush	S1	G4G5		
Schoenoplectus saximontanus	A Bulrush	S1	G5		
Schoenoplectus subterminalis	Swaying Rush	S1	G4G5		
Schoenoplectus torreyi	Torrey's Bulrush	SH	G5?		
Scirpus divaricatus	A Bulrush	SH	G5		
Scirpus pallidus	Pale Bulrush	S2	G5		
Scirpus pedicellatus	A Bulrush	SH	G4		
Scleria reticularis var. pubescens	Muhlenberg's Nut-rush	S1	G5		
Scrophularia lanceolata	Early Figwort	SH	G5		
Scutellaria elliptica var. hirsuta	Hairy Skullcap	S1	G5TNR		
Scutellaria galericulata	Marsh Skullcap	S1	G5		
Scutellaria montana	Large-flowered Skullcap	SRF	G2		T
Senecio tomentosus	Hairy Groundsel	SH	G4G5		•
Sida elliottii	Elliott Sida	S11	G4G5		
Sisyrinchium atlanticum	Eastern Blue-eyed Grass	S2	G5		
Smilax illinoensis	Carrion Flower	S2S3	G4?		
Solidago riddellii	Riddell's Goldenrod	S2S3 S2	G5		
Spermolepis divaricata	Rough-fruit Spermolepis	S2 S1	G5		
	•		G3 G4		
Sphenopholis pensylvanica	Swamp Oats	SH	U4		

SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATE STATUS	FEDERAL STATUS
Spiraea alba	Meadow-sweet	SIG II VIC	G5	SIAIOS	SIATOS
Spiraea tomentosa	Hardhack	S1	G5		
Sporobolus airoides	Alkali Sacaton	S1	G5		
Stachys aspera	Hedge Nettle	SH	G5T4?		
Stenosiphon linifolius	Stenosiphon	S2	G514:		
Stylisma pickeringii var. pattersonii	A Stylisma	S1	G4T4		
Styrax grandifolius	Bigleaf Snowbell	SRF	G5		
Sullivantia sullivantii	Sullivantia	S2	G3 G4		
Symphoricarpos occidentalis	Wolfberry	S1	G5		
Thalia dealbata	Water Canna	S2	G3 G4		
Thelesperma filifolium var. filifolium	Thelesperma	S2 S2	G4G5TNR		
Tipularia discolor	Cranefly Orchid	S2 S1	G4G51NK		
Torreyochloa pallida	Pale Manna Grass	S1	G5?		
Tradescantia ozarkana	Ozark Spiderwort	S2	G3?		
Tragia ramosa	A Noseburn	S2 S2	G5		
S					
Trautvetteria caroliniensis	False Bugbane	S2	G5		
Trepocarpus aethusae	Trepocarpus	S1	G4G5		
Triadenum tubulosum	Marsh St. John's Wort	S1	G4?		
Trichostema setaceum	Blue Curls	S1	G5		
Tridens flavus var. chapmanii	A Grass	S2	G5TNR		
Tridens muticus var. elongatus	Slim Tridens	SH	G5TNR		
Tridens oklahomensis	Oklahoma Fluff Grass	HYB	GNR		
Trifolium carolinianum	Carolina Clover	SH	G5		
Trifolium stoloniferum	Running Buffalo Clover	S1	G3	Е	Е
Trillium nivale	Snow Trillium	S3?	G4		
Trillium pusillum var. ozarkanum	Ozark Wake Robin	S2	G3T3		
Triodanis holzingeri	A Venus' Looking Glass	SH	G4		
Triodanis lamprosperma Triosteum angustifolium var. eamesii	A Venus' Looking Glass Yellow-flowered Horse Gentian	S2 S1	G5? G5TNRQ		
Typha domingensis	Southern Cattail	S1	G4G5		
Ulmus crassifolia			G5		
	Cedar Elm	S1			
Ulmus thomasii	Rock Elm	S2	G5		
Urtica chamaedryoides	Weak Nettle	S1	G4G5		
Utricularia subulata	Slender Bladderwort	S1	G5		
Valerianella ozarkana	Ozark Corn Salad	S2	G3		
Veronica americana	American Brooklime	SH	G5		
Viburnum dentatum var. deamii	Southern Arrow-wood	S1	G5T4T5Q		
Viburnum lentago	Nannyberry	SH	G5		
Viburnum ozarkense	Ozark Arrow Wood	S2S3	GNR		
Viburnum recognitum	Northern Arrow-wood	S1	G5		
Vicia ludoviciana var. ludoviciana	Louisiana Vetch	SH	G5TNR		
Vicia minutiflora	Pygmy-flowered Vetch	SH	G5		
Viola macloskeyi ssp. pallens	Smooth White Violet	S2	G5T5		
Vitis rotundifolia	Muscadine	S1	G5		
Waldsteinia fragarioides ssp. fragario	Barren Strawberry	S2	G5T5		
Wolffia borealis	Dotted Watermeal	SU	G5		
Wolffia columbiana	Columbia Water-meal	SU	G5		
Wolffiella gladiata	Wolffiella	S1	G5		
Xyris jupicai	Yellow-eyed-grass	S1	G5		
Xyris torta	Yellow-eyed Grass	S1	G5		

				STATE	FEDERAL
SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATUS	STATUS
Yucca arkansana	Arkansas Yucca	S2	G5		
Yucca glauca	Small Soapweed Yucca	S2	G5		
Zannichellia palustris var. major	Horned Pondweed	S3?	G5TNR		
Zigadenus elegans	White Camas	S2	G5		
Zigadenus nuttallii	Death Camas	S1	G5		
Zizania palustris var. interior	Interior Wild Rice	SH	G4G5T4T5		
FLATWORMS					
Macrocotyla glandulosa	Pink Planarian	S1	G1G3		
Macrocotyla lewisi	Lewis' Cave Planarian	S1	G1G2		
Sphalloplana evaginata	Perryville Cave Planarian	S1	G1G2		
Sphalloplana hubrichti	Hubricht's Cave Planarian	S1	G3G4		
MOLLUSKS					
Alasmidonta marginata	Elktoe	S2?	G4		
_		S1	G1		
Amnicola stygia	Stygian Cavesnail				
Anodonta suborbiculata	Flat Floater	S2	G5		
Anodontoides ferussacianus	Cylindrical Papershell	S1?	G5		-
Antrobia culveri	Tumbling Creek Cavesnail	S1	G1	Е	Е
Arcidens confragosus	Rock Pocketbook	S3	G4		
Cumberlandia monodonta	Spectaclecase	S3	G2G3		
Cyprogenia aberti	Western Fanshell	S1S2	G2		
Elliptio crassidens	Elephantear	S1	G5	Е	
Epioblasma florentina curtisii	Curtis Pearlymussel	S1	G1T1	Е	E
Epioblasma triquetra	Snuffbox	S1	G3	Е	
Euconulus fulvus	Brown Hive	SU	G4G5		
Fontigens aldrichi	Ozark Springsnail	S4	G3G4		
Fontigens antroecetes	Enigmatic Cavesnail	S2	G2		
Fontigens proserpina	Proserpine Cavesnail	S1	G1		
Fusconaia ebena	Ebonyshell	S1?	G4G5	E	
Gastrocopta rogersensis	A Snaggletooth Snail	SU	G2		
Hendersonia occulta	Cherrystone Snail	S3	G4		
Lampsilis abrupta	Pink Mucket	S2	G2	E	E
Lampsilis higginsii	Higgins Eye	SA	G1	E	E
Lampsilis rafinesqueana	Neosho Mucket	S2	G2		C
Lampsilis reeviana reeviana	Arkansas Brokenray	S2?	G3T1T2		
Leptodea leptodon	Scaleshell	S1S2	G1	E	E
Leptoxis arkansensis	Arkansas Mudalia	SU	G1		
Ligumia recta	Black Sandshell	S1S2	G5		
Linisa texasiana	Texas Liptooth	SU	GNR		
Millerelix deltoidea	A Snail	SU	GNR		
Obovaria jacksoniana	Southern Hickorynut	S1	G1G2		
Obovaria olivaria	Hickorynut	S2S3	G4		
Plectomerus dombeyanus	Bankclimber	S3	G4		
Plethobasus cyphyus	Sheepnose	S1	G3	Е	
Pleurocera alveare	Rough Hornsnail	S1S3	G3G4		
Potamilus capax	Fat Pocketbook	S1	G1	Е	Е
Ptychobranchus occidentalis	Ouachita Kidneyshell	S2S3	G3G4	_	-
1 13 choofmends occidentalis	Gaucina Ridneyshen	0200	53 5 4		

				STATE	FEDERAL
SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATUS	STATUS
Pyrgulopsis ozarkensis	Ozark Pyrg	SU	G1		
Quadrula cylindrica cylindrica	Rabbitsfoot	S1	G3T3		
Quadrula fragosa	Winged Mapleleaf	SX	G1	Е	Е
Quadrula nodulata	Wartyback	S3	G4		
Simpsonaias ambigua	Salamander Mussel	S1?	G3		
Somatogyrus rosewateri	Chert Pebblesnail	S1S3	G1		
Stagnicola elodes	Marsh Pondsnail	S3?	G5		
Toxolasma lividus	Purple Lilliput	S2	G2		
Toxolasma texasiensis	Texas Lilliput	S3	G4		
Ventridens brittsi	Western Dome	SU	GNR		
Ventridens demissus	Perforate Dome	SU	G4G5		
Vertigo gouldi	Variable Vertigo	SU	G4G5		
Vertigo meramecensis	Bluff Vertigo	SU	G2		
Vertigo oscariana	Capital Vertigo	SU	G4		
Xolotrema denotatum	Black Velvet Wedge Snail	SU	G5		
ARACHNIDS					
Apochthonius mysterius	Mystery Cave Pseudoscorpion	S1	G1G2		
Apochthonius typhlus	Stone County Cave Pseudoscorpion	S1	G1G2		
Hesperochernes occidentalis	A Troglobitic Pseudoscorpion	S3	G1G2 G4G5		
Mundochthonius cavernicolus	Cavernicolous Pseudoscorpion	SU	G3G4		
Phanetta subterranea	Subterranean Cave Spider	S1	G3G4 G4		
	_	S1 S2	G4 G4G5		
Porrhomma cavernicola	Cavernicolous Porrhomma Spider	32	0403		
CRUSTACEANS					
Allocrangonyx hubrichti	Hubricht's Long-tailed Amphipod Short-tailed Groundwater	S3	G1		
Bactrurus brachycaudus	Amphipod	S4	G3G4		
Bactrurus hubrichti	Sword-tail Cave Amphipod False Sword-tailed Cave	S1	G3G4		
Bactrurus pseudomucronatus	Amphipod	S2	G1G3		
Caecidotea antricola	Cave Isopod	S4	G3G4		
Caecidotea dimorpha	An Isopod	S1S3	G1G3		
Caecidotea fustis	Fustis Cave Isopod	S2	G3		
Caecidotea salemensis	Salem Cave Isopod	S2	G3G4		
Caecidotea serrata	Serrated Cave Isopod	S1	G1G2		
Caecidotea stiladactyla	Slender-fingered Cave Isopod	S1	G2G3		
Caecidotea stygia	Stygian Cave Isopod	S1	G4G5		
Cambarellus puer	Cajun Dwarf Crayfish	S3?	G4G5		
Cambarellus shufeldtii	Shufeldt's Dwarf Crayfish	S3?	G5		
Cambarus aculabrum	Cave Crayfish	SP	G1		
Cambarus hubrichti	Salem Cave Crayfish	S3	G2		
Cambarus setosus	Bristly Cave Crayfish	S3	G2		
Cyclops clandestinus	Clandestine Groundwater Copepod	S1S3	GNR		
Fallicambarus fodiens	Digger Crayfish	S2S3	G5		
Faxonella clypeata	Shield Crayfish	S2S3	G5		
Lirceus megapodus	An Isopod	SU	GNR		
Macrobrachium ohione	Freshwater Shrimp	S1	G4		
* *	· r				

				STATE	FEDERAL
SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATUS	STATUS
Orconectes eupunctus	Coldwater Crayfish	S3	G2		
Orconectes harrisonii	Belted Crayfish	S3	G3		
Orconectes lancifer	Shrimp Crayfish	S1S2	G5		
Orconectes marchandi	Mammoth Spring Crayfish	S1S2	G2		
Orconectes meeki	Meek's Crayfish	S1	G4		
Orconectes peruncus	Big Creek Crayfish	S2	G2		
Orconectes quadruncus	St. Francis River Crayfish	S2	G2		
Orconectes stygocaneyi	Caney Mountain Cave Crayfish	S1S2	G1		
Orconectes williamsi	Williams' Crayfish	S1?	G2		
Procambarus viaeviridis	Vernal Crayfish	S3?	G5		
Stygobromus barri	Barr's Groundwater Amphipod	S1S3	G2G3		
Stygobromus clantoni	Clanton's Groundwater Amphipod	S1S3	G2G4		
Stygobromus heteropodus	Pickle Springs Amphipod	SX	G1G3		
Stygobromus onondagaensis	Onondaga Cave Amphipod	S3?	G1		
Stygobromus ozarkensis	Ozark Cave Amphipod	S3?	G3G4		
Stygobromus subtilis	Subtle Groundwater Amphipod	S1S3	G2G3		
Triops longicaudatus	Tadpole Shrimp	SU	G5		
MILLIPEDES					
Chaetaspis aleyorum	Aleys' Cave Millipede	S1	GNR		
Scoterpes dendropus	Scoterpes Cave Millipede	SU	GNR		
Tingupa pallida	Tingupa Cave Millipede	S4	G3G4		
Zosteractis interminata	Zosteractis Cave Millipede	SU	G3G4		
	Pres				
INSECTS					
Acroneuria ozarkensis	Ozark Stone	S2	G2		
Agapetus artesus	Artesian Agapetus Caddisfly	S3	GNR		
Allocapnia pygmaea	Pygmy Snowfly	S3	G5		
Alloperla hamata	Barbed Sallfly	S3	G4		
Alloperla leonarda	Truncate Sallfly	S3	G4		
Amblytropidia mysteca	A Glade Grasshopper	SU	G5		
Anax longipes	Comet Darner	S3	G5		
Andrena beameri	An Andrenid Bee	S3	GNR		
Arrhopalites clarus	Clarus Cave Springtail	S3	G2G4		
Attaneuria ruralis	Giant Stone	S3	G4		
Baetisca obesa	A Mayfly	S3	G5		
Calephelis borealis	Northern Metalmark Carolina Leaf Roller Camel	S2S3	G3G4		
Camptonotus carolinensis	Cricket	SU	GNR		
Catocala marmorata	Marbled Underwing Moth	S3	G3G4		
Catocala pretiosa texarkana	Precious Underwing Moth	S3?	G4T4		
Chalybion zimmermanni zimmermanni	A Blue Mud Dauber	SU	GNRTNR		
Cicindela circumpicta johnsonii	Saline Spring Tiger Beetle	S2S3	G5T5		
Conocephalus saltans	Prairie Meadow Katydid	S3	GNR		
Euphyes dukesi	Duke's Skipper	S1?	G3		
Formica creightoni	Creighton's Slavemaking Ant	S3	GNR		
Formica fossaceps	An Ant	SU	GNR		
Formica montana	Prairie Mound Ant	S3	GNR		

SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATE STATUS	FEDERAL STATUS
Formica querquetulana	An Ant	S3	GNR		
Glyphopsyche missouri	Missouri Glyphopsyche Caddisfly	S1	G1		
Gomphus ozarkensis	Ozark Clubtail	S3	G4		
Gomphus ventricosus	Skillet Clubtail	SU	G3		
Gryllotalpa major	Prairie Mole Cricket	S3	G3		
Hesperia ottoe	Ottoe Skipper	S2S3	G3G4		
Hydroperla fugitans	Austin Springfly	S3	G3		
Hydropsyche piatrix	A Net-spinning Caddisfly	S4	GNR		
Hypoponera opacior	An Ant	SU	GNR		
Inscudderia taxodii	Bald Cypress Katydid	S1	GNR		
Isoperla burksi	Banded Stripetail	S3	G4		
Isoperla longiseta	Plains Stripetail	SX	G5		
Leptysma marginicollis	Cattail Toothpick Grasshopper	S2S3	G5		
Leucotrichia pictipes	A Micro Caddisfly	S3	GNR		
Lordithon niger	Black Lordithon Rove Beetle	SH	GU		
Lytrosis permagnaria	Geometrid Moth	SU	G3G4		
Macromia pacifica	Gilded River Cruiser	S3	G4		
Melanoplus fasciatus	Huckleberry Grasshopper	S3	G5		
Melanoplus impudicus	Immodest Grasshopper	S3	G4G5		
Melanoplus packardii	Packard's Grasshopper	S2	G5		
Melanoplus punctulatus griseus	Grizzly Grasshopper	SU	G4T4		
Melanoplus viridipes viridipes	Green-legged Grasshopper	S3	G4T4		
Mermiria picta	Mermiria Grasshopper	S3	G5		
Merope tuber	A Meropid Scorpionfly	S3	G3G5		
Metaleptea brevicornis	Short-horned Grasshopper	S4	G5		
Neoconocephalus bivocatus	Two-voiced Conehead Katydid	S3	GNR		
Neoconocephalus exiliscanorus	Slightly-musical Conehead Katydid	S3	GNR		
Neoconocephalus lyristes	Bog Conehead Katydid	S3	GNR		
Neoconocephalus retusus	Round-tipped Conehead Katydid	S4?	GNR		
Neoperla carlsoni	Spiny Stone	S3?	G4		
Neotrichia kitae	Kite's Neotrichian Caddsifly	SU	GU		
Neotridactylus apicialis	Larger Pygmy Grasshopper	SU	GNR		
Nicrophorus americanus	American Burying Beetle	SH	G2G3	E	E
Ochrotrichia contorta	Contorted Ochrotrichian Micro Cadd	SU	GNR		
Oecleus chrisjohni	A Cixiid Planthopper	SU	GNR		
Oncopodura hoffi	Hoff's Cave Springtail	S1S3	G1G2		
Ophiogomphus westfalli	Westfall's Snaketail	S3	G3		
Pardalophora saussurei	A Glade Grasshopper	S3	G5		
Paroxya hoosieri	Hoosier Grasshopper	S1	G5		
Pentacora signoreti	A Shore Bug	S1	GNR		
Phoetaliotes nebrascensis	Large-headed Grasshopper	S3	G5		
Phrixocnemis truculentus	Truculent Camel Cricket	SU	GNR		
Phyllobrotica lengi	A Leaf Beetle	SU	GNR		
Phyllobrotica nigritarsus	A Leaf Beetle	SU	GNR		
Phyllobrotica physostegiae	A Leaf Beetle	S4?	GNR		
Ponera exotica	An Ant	S3	GNR		
Prostoia similis	Longhorn Forestfly	S3	G5		
Pseudosinella espana	Espana Cave Springtail	S3	G3		

CONTRICTONANT	COMMONIANT	CDANIK	CDANIZ	STATE	FEDERAL
SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATUS	STATUS
Psinidia fenestralis	Sand Grasshopper	S2S3	G5		
Satyrodes appalachia leeuwi	Appalachian Eyed Brown	S2S3	G4T4		
Serratella frisoni	Frison's Seratellan Mayfly	S2	G3		
Sinella avita	Avita Cave Springtail	SU	G4G5		
Sinella barri	Barr's Cave Springtail	SU	G5	_	_
Somatochlora hineana	Hine's Emerald	S1	G2G3	Е	Е
Somatochlora ozarkensis	Ozark Emerald	S2S3	G3		
Speyeria diana	Diana Fritillary	SU	G3		
Speyeria idalia	Regal Fritillary	S3	G3		
Stenonema bednariki	A Heptageniid Mayfly	S3	G3		
Stethophyma celatum	Sedge Grasshopper	S3	G4		
Stylurus notatus	Elusive Clubtail	S2S3	G3		
Tachopteryx thoreyi	Gray Petaltail	S3	G4		
Tettigidea armata	Spined Grouse Locust	S2S3	G5		
Tomocerus missus	Missus Cave Springtail	SU	G4G5		
Trimerotropis maritima	Seaside Grasshopper	SH	G5		
Xenochalepus potomaca	A Leaf Beetle	SU	GNR		
Xenotrechus condei	Northern Xenotrechus Cave Beetle	S1	G1G2		
Xenotrechus denticollis	Southern Xenotrechus Cave Beetle	S1	G1G2		
FISH					
Acipenser fulvescens	Lake Sturgeon	S1	G3G4	E	
Alosa alabamae	Alabama Shad	S2	G3	L	
Amblyopsis rosae	Ozark Cavefish	S2	G2G3	Е	T
Ameiurus nebulosus	Brown Bullhead	S3?	G2G3 G5	L	1
Ammocrypta clara	Western Sand Darter	S2S3	G3		
Carpiodes velifer	Highfin Carpsucker	S2S3	G4G5		
Centrarchus macropterus	Flier	S3	G5		
Cottus sp	Grotto Sculpin	S2	G1Q		С
Crystallaria asprella	Crystal Darter	S1	G3	Е	C
Cycleptus elongatus	Blue Sucker	S3	G3G4	L	
Cyprinella camura	Bluntface Shiner	S2S3	G5G4 G5		
Erimyzon sucetta	Lake Chubsucker	S2S3	G5		
Etheostoma cragini	Arkansas Darter	S3	G3		С
Etheostoma euzonum erizonum	Current River Saddled Darter	S3	G3G4		C
Etheostoma euzonum euzonum	Arkansas Saddled Darter	S2	G3G4 G3G4		
			G5 G5	Е	
Etheostoma fusiforme	Swamp Darter	S1			
Etheostoma histrio	Harlequin Darter	S2	G5	Е	
Etheostoma microperca	Least Darter	S2	G5	Г	Т
Etheostoma nianguae	Niangua Darter	S2	G2	Е	T
Etheostoma parvipinne	Goldstripe Darter	S1	G4G5	Е	
Etheostoma vivax	Scaly Sand Darter	S3	G5		
Etheostoma whipplei	Redfin Darter	S1	G4	Е	
Forbesichthys agassizi	Spring Cavefish	S1	G4G5	Е	
Fundulus chrysotus	Golden Topminnow	S1	G5		
Fundulus dispar	Starhead Topminnow	S2	G4		
Fundulus sciadicus	Plains Topminnow	S3	G4		
Fundulus zebrinus	Plains Killifish	S2	G5		

SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATE STATUS	FEDERAL STATUS
Hiodon tergisus	Mooneye	S3	G5	5111105	5111105
Hybognathus argyritis	Western Silvery Minnow	S2	G4		
Hybognathus hankinsoni	Brassy Minnow	S3	G5		
Hybognathus hayi	Cypress Minnow	S1	G5	Е	
Hybognathus nuchalis	Mississippi Silvery Minnow	S3S4	G5		
Hybognathus placitus	Plains Minnow	S2	G4		
Ichthyomyzon gagei	Southern Brook Lamprey	S2S3	G5		
Lampetra appendix	American Brook Lamprey	S2	G4		
Lepisosteus spatula	Alligator Gar	SU	G3G4		
Lepomis marginatus	Dollar Sunfish	SU	G5		
Lepomis symmetricus	Bantam Sunfish	S2	G5		
Macrhybopsis gelida	Sturgeon Chub	S3	G3		
Macrhybopsis meeki	Sicklefin Chub	S3	G3		
Macrhybopsis storeriana	Silver Chub	S3	G5		
Mugil cephalus	Striped Mullet	SA	G5		
Notropis amnis	Pallid Shiner	SX	G4		
Notropis buchanani	Ghost Shiner	S2	G5		
Notropis chalybaeus	Ironcolor Shiner	S1	G4		
Notropis heterolepis	Blacknose Shiner	S2	G4		
Notropis maculatus	Taillight Shiner	S1	G5	E	
Notropis ozarcanus	Ozark Shiner	S2	G3		
Notropis sabinae	Sabine Shiner	S1	G3	E	
Notropis texanus	Weed Shiner	S3	G5		
Notropis topeka	Topeka Shiner	S1	G3	E	E
Noturus eleutherus	Mountain Madtom	S1S2	G4	E	
Noturus flavater	Checkered Madtom	S3S4	G3G4		
Noturus placidus	Neosho Madtom	S2	G2	E	T
Opsopoeodus emiliae	Pugnose Minnow	S4	G5		
Percina copelandi	Channel Darter	S3	G4		
Percina cymatotaenia	Bluestripe Darter	S2	G2		
Percina nasuta	Longnose Darter	S1	G3	E	
Percina shumardi	River Darter	S3	G5		
Percina uranidea	Stargazing Darter	S2	G3		
Percopsis omiscomaycus	Trout-perch	S1?	G5		
Pimephales tenellus parviceps	Eastern Slim Minnow	S2S3	G4T2T3		
Pimephales tenellus tenellus	Western Slim Minnow	S3	G4T4		
Platygobio gracilis	Flathead Chub	S1	G5	E	
Polyodon spathula	Paddlefish	S3	G4		
Scaphirhynchus albus	Pallid Sturgeon	S1	G1	E	Е
Typhlichthys subterraneus	Southern Cavefish	S2S3	G4		
Umbra limi	Central Mudminnow	S1	G5	E	
AMPHIBIANS					
Ambystoma annulatum	Ringed Salamander	S3	G4		
Ambystoma talpoideum	Mole Salamander	S2	G5		
Ambystoma tigrinum tigrinum	Eastern Tiger Salamander	SU	G5T5		
Amphiuma tridactylum	Three-toed Amphiuma	S2	G5		

SCIENTIFIC NAME Bufo cognatus Cryptobranchus alleganiensis alleganie	COMMON NAME Great Plains Toad Eastern Hellbender	SRANK SU S1	GRANK G5 G3G4T3T4	STATE STATUS	FEDERAL STATUS
Cryptobranchus alleganiensis bishopi	Ozark Hellbender	S1	G3G4T3Q	E	С
Hemidactylium scutatum	Four-toed Salamander	S4	G5 G5	L	C
Necturus maculosus louisianensis	Red River Mudpuppy	SU	G5T4		
Necturus maculosus maculosus	Common Mudpuppy	SU	G5T4 G5T5		
Pseudacris streckeri illinoensis	Illinois Chorus Frog	S2	G5T3		
Rana areolata circulosa	Northern Crawfish Frog	S3	G3T3 G4T4		
Rana pipiens	Northern Leopard Frog	S2	G414 G5		
Rana sylvatica	Wood Frog	S3	G5		
Scaphiopus holbrookii holbrookii	Eastern Spadefoot	S2	G5T5		
Typhlotriton spelaeus	Grotto Salamander	S2S3	G313 G4		
Typinounon speracus	Grotto Salamander	3233	04		
REPTILES					
Cemophora coccinea copei	Northern Scarlet Snake	S2S3	G5T5		
Crotaphytus collaris collaris	Eastern Collared Lizard	S4	G5		
Deirochelys reticularia miaria	Western Chicken Turtle	S1	G5T5	Е	
Elaphe vulpina vulpina	Western Fox Snake	S1	G5T5	Е	
Emydoidea blandingii	Blanding's Turtle	S1	G4	E	
Eumeces obsoletus	Great Plains Skink	S2	G5		
Eumeces septentrionalis obtusirostris	Southern Prairie Skink	S3	G5T5		
Eumeces septentrionalis septentrionalis	Northern Prairie Skink	S3	G5T5		
Farancia abacura reinwardtii	Western Mud Snake	S2	G5T5		
Heterodon nasicus gloydi	Dusty Hognose Snake	SX	G5T3T4Q		
Heterodon nasicus nasicus	Plains Hognose Snake	SX	G5T5		
Kinosternon flavescens flavescens	Yellow Mud Turtle	S1	G5T5	E	
Kinosternon flavescens spooneri	Illinois Mud Turtle	S1	G5T1Q	E	
Liochlorophis vernalis	Smooth Green Snake	SX	G5		
Macrochelys temminckii	Alligator Snapping Turtle	S2	G3G4		
Nerodia cyclopion	Mississippi Green Water Snake	SX	G5	E	
Phrynosoma cornutum	Texas Horned Lizard	S2	G4G5		
Sistrurus catenatus catenatus	Eastern Massasauga	S1	G3G4T3T4	E	C
BIRDS					
Accipiter cooperii	Cooper's Hawk	S3	G5		
Accipiter striatus	Sharp-shinned Hawk	S2	G5		
Aimophila aestivalis	Bachman's Sparrow	S1	G3	E	
Ammodramus henslowii	Henslow's Sparrow	S2	G4		
Anhinga anhinga	Anhinga	SX	G5		
Ardea alba	Great Egret	S3	G5		
Asio flammeus	Short-eared Owl	S2	G5		
Asio otus	Long-eared Owl	SU	G5		
Bartramia longicauda	Upland Sandpiper	S3	G5		
Bonasa umbellus	Ruffed Grouse	SU	G5		
Botaurus lentiginosus	American Bittern	S1	G4	E	
Buteo lineatus	Red-shouldered Hawk	S3	G5		

SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATE STATUS	FEDERAL STATUS
Buteo swainsoni	Swainson's Hawk	S2	G5	SIATOS	SIAIOS
Campephilus principalis	Ivory-billed Woodpecker	SX	GH		Е
Certhia americana	Brown Creeper	SU	G5		L
Chlidonias niger	Black Tern	SX	G4		
Circus cyaneus	Northern Harrier	S1S2	G5	Е	
Cistothorus palustris	Marsh Wren	S2	G5	L	
Conuropsis carolinensis	Carolina Parakeet	SX	GX		
Coragyps atratus	Black Vulture	S3	G5		
Corvus corax	Common Raven	SX	G5		
Cygnus buccinator	Trumpeter Swan	SX	G4		
Dendroica cerulea	Cerulean Warbler	S2S3	G4		
Dendroica pensylvanica	Chestnut-sided Warbler	S3	G5		
Ectopistes migratorius	Passenger Pigeon	SX	GX		
Egretta caerulea	Little Blue Heron	S2	G5		
Egretta thula	Snowy Egret	S1	G5	Е	
Elanoides forficatus	Swallow-tailed Kite	SX	G5	_	
Falco peregrinus	Peregrine Falcon	S1	G4	Е	
Gallinula chloropus	Common Moorhen	S2	G5		
Geococcyx californianus	Greater Roadrunner	S3	G5		
Haliaeetus leucocephalus	Bald Eagle	S2	G4	Е	T
Ictinia mississippiensis	Mississippi Kite	S2	G5		
Ixobrychus exilis	Least Bittern	S2	G5		
Lanius ludovicianus	Loggerhead Shrike	S1S2	G4		
Laterallus jamaicensis	Black Rail	S1	G4		
Limnothlypis swainsonii	Swainson's Warbler	S1	G4	Е	
Nycticorax nycticorax	Black-crowned Night-heron	S2	G5		
Pandion haliaetus	Osprey	S3	G5		
Passerina ciris	Painted Bunting	S3	G5		
Picoides borealis	Red-cockaded Woodpecker	SX	G3		E
Podilymbus podiceps	Pied-billed Grebe	S2	G5		
Porzana carolina	Sora	S2	G5		
Rallus elegans	King Rail	S1	G4G5	E	
Rallus limicola	Virginia Rail	S2?	G5		
Sitta pusilla	Brown-headed Nuthatch	SX	G5		
Sterna antillarum athalassos	Interior Least Tern	S1	G4T2Q	E	E
Tympanuchus cupido	Greater Prairie-chicken	S1	G4	E	
Tyto alba	Barn Owl	S2	G5	E	
Vermivora bachmanii	Bachman's Warbler	SX	GH		E
Vireo bellii	Bell's Vireo	S3	G5		
Xanthocephalus xanthocephalus	Yellow-headed Blackbird	S3	G5		
MAMMALS					
Bos bison	American Bison	SX	G4		
Canis lupus	Gray Wolf	SX	G4		T
Canis rufus	Red Wolf	SX	G1		E
Cervus elaphus	Wapiti	SX	G5		
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	SU	G3G4		
Corynorhinus townsendii ingens	Ozark Big-eared Bat	SX	G4T1	E	E

SCIENTIFIC NAME	COMMON NAME	SRANK	GRANK	STATE STATUS	FEDERAL STATUS
Lepus californicus	Black-tailed Jackrabbit	S1	G5	E	
Lepus townsendii	White-tailed Jackrabbit	SX	G5		
Mustela frenata	Long-tailed Weasel	S2	G5		
Mustela nivalis	Least Weasel	S4	G5		
Myotis austroriparius	Southeastern Bat	SU	G3G4		
Myotis grisescens	Gray Bat	S3	G3	E	E
Myotis leibii	Eastern Small-footed Myotis	SU	G3		
Myotis septentrionalis	Northern Myotis	S3	G4		
Myotis sodalis	Indiana Bat	S1	G2	E	E
Ochrotomys nuttalli	Golden Mouse	S3?	G5		
Oryzomys palustris	Rice Rat	SU	G5		
Perognathus flavescens	Plains Pocket Mouse	S2	G5		
Peromyscus gossypinus	Cotton Mouse	S2	G5		
Puma concolor	Mountain Lion	SU	G5	E	
Reithrodontomys montanus	Plains Harvest Mouse	S2	G5		
Spermophilus franklinii	Franklin's Ground Squirrel	S2S3	G5		
Spilogale putorius interrupta	Plains Spotted Skunk	S1	G5T4	E	
Sylvilagus aquaticus	Swamp Rabbit	S2	G5		
Ursus americanus	Black Bear	S3	G5		

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- Summers, B. 1996. Missouri orchids. Missouri Department of Conservation. Jefferson City, Missouri. 112 pp.

FLATWORMS

For Additional Information:

Huggins, D.G., P.M. Liechti and L.C. Ferrington, Jr., eds. 1985. Guide to the freshwater invertebrates of the Midwest. Kansas Biological Survey, Technical Publication No. 11. 221 pp.

MOLLUSKS

Taxonomic Authority:

Turgeon, D.D., A.E. Bogan, E.V. Coan, W.K. Emerson, W.G. Lyons, W.L. Pratt, C.F.E. Roper, A. Scheltama, F.G. Thompson and J.D. Williams. 1998. Common and scientific names of aquatic invertebrates from the United States and Canada: mollusks, 2nd ed. American Fisheries Society Special Publication No. 26. 526 pp.

For Additional Information:

- Oesch, R.D. 1995. Missouri naiades: a guide to the mussels of Missouri. Missouri Department of Conservation. Jefferson City, Missouri. 270 pp.
- Wu, S.K., R.D. Oesch and M.E. Gordon. 1997. Missouri aquatic snails. Missouri Department of Conservation. Jefferson City, Missouri. Natural History Series, No. 5. 97 pp.

CRUSTACEANS

<u>Taxonomic Authority:</u>

Williams, A.B., et. al. 1989. A list of common and scientific names of decapod crustaceans from America north of Mexico. American Fisheries Society special publication, No. 17. 77 pp.

For Additional Information:

Pflieger, W.L. 1996. The crayfishes of Missouri. Missouri Department of Conservation. Jefferson City, Missouri. 152 pp.

INSECTS

<u>Taxonomic Authority:</u>

Poole, R.W. and P. Gentili (Eds.). 1996-97. Nomina insecta nearctica. A checklist of the insects of North America. Entomological Information Services. Rockville, M.D. Four volumes.

For Additional Information:

Heitzman, J.R. and J.E. Heitzman. 1987. Butterflies and moths of Missouri. Missouri Department of Conservation. Jefferson City, Missouri. 385 pp.

FISH

Taxonomic Authority:

Robins, C.R., R.M. Bailey, C.E. Bond, J.R. Brooker, E.A. Lachner, R.N. Lea, and W.B. Scott. 1991. Common and scientific names of fishes from the United States and Canada (Fifth Edition). American Fisheries Society Special Publication 20. 183 pp.

For Additional Information:

Pflieger, W.L. 1997. The fishes of Missouri Revised Edition. Missouri Department of Conservation. Jefferson City, Missouri. 372 pp.

AMPHIBIANS AND REPTILES

Taxonomic Authority:

Conant, R. and J.T. Collins. 1998. A field guide to reptiles and amphibians of eastern and central North America. Third ed. expanded. Houghton Mifflin. Boston. 616 pp.

Crother, B.I. and Committee. 2000. Scientific and standard English names of amphibians and reptiles of North America north of Mexico, with comments regarding confidence in our understanding. Herpetological Circular No. 29. 82 pp.

For Additional Information:

Johnson, T.R. 2000. The amphibians and reptiles of Missouri. Missouri Department of Conservation. Jefferson City, Missouri. 400 pp.

BIRDS

Taxonomic Authority:

American Ornithologists' Union. 1998. Check-list of North American birds, 7th Edition. American Ornithologist's Union. Washington, D.C. 829 pp.

For Additional Information:

- Jacobs, R. and J.D. Wilson. 1997. Missouri breeding bird atlas. Missouri Department of Conservation. Jefferson City, Missouri. 430 pp.
- National Geographic Society. 1987. Field guide to the birds of North America. Second edition. Washington, D.C. 464 pp.
- Robbins, M.B. and D.A. Esterla. 1992. Birds of Missouri: their distribution and abundance. University of Missouri Press. Columbia, Missouri. 399 pp.

MAMMALS

Taxonomic Authority:

- Hall, E.R. 1981. The mammals of North America, 2nd edition. John Wiley & Sons, New York, 1181+ pp.
- Wilson, D.E. and D.M. Reeder, eds. 1993. Mammal species of the world: a taxonomic and geographic reference, 2nd edition. Smithsonian Institution, Washington, D.C. 1206 pp.

For Additional Information:

Schwartz, C.W. and E.R. Schwartz. 1986. The wild mammals of Missouri. University of Missouri Press. Columbia, Missouri. 356 pp.

FOR MORE INFORMATION

The Missouri Department of Conservation collects and manages information on the location and status of species of conservation concern throughout the state. The Natural Heritage Database is a repository for this information.

If you have information on the location or questions about the status of any element on this checklist, please write or call:

Endangered Species Coordinator Missouri Department of Conservation P.O. Box 180 Jefferson City, MO 65102 (573) 751-4115

If you are requesting information about the location of any element on this checklist for the purposes of environmental review, please write:

Policy Coordination Missouri Department of Conservation P.O. Box 180 Jefferson City, MO 65102

PLANTS OF CONSERVATION CONCERN REPORTING FORM

Instructions: Complete ONE form per visit per (source) location.

instructions. Complete ONE form per visit	per (source) location.		
ELEMENT IDENTIFICATION and LOCATION			
Scientific name:	Common name:		
Identification problems: Y N Explain:			
-			
If surveying known site, was species relocated? Y	N		
Photograph/slide taken? Y N Where has phot	o/slide been deposited?		
Specimen collected? Y N Collector, Collection	#, and Repository:		
Survey site name:	ds, towns, distances, compass directions):		
Directions to the survey site (include landmarks, road	ds, towns, distances, compass directions):		
-	-		
County(ies):	Sec		
USGS Quadrangle names:			
Twp Rng	Sec ½ sec		
If using a GPS unit please collect data in NAD83 a	zone 15; if unfeasible, indicate: NAD zone		
UTM: Northing (Y)	OP: Latituda		
Fasting (Y)	OR: LatitudeLongitude		
Easting (X)Explanation of possible GPS unit inaccuracy:			
Explanation of possible G1 S unit maccuracy.			
TOPOGRAPHIC MAP (mandatory) Attach a copy	of the topographic map or DOQ (no county maps, please!) with the species'		
	(i.e., observer, transcriber, updater, or Heritage Biologist).		
rocation marked. Trease identity who marked the map	(ne., observer, transcriper, aparter, or freshings Biologisty.		
Use the following guidelines to draw the source's loca	tion on the map as precisely as possible. Note: Heritage mappers will		
	tion on the map as precisely as possible. Note: Trentage mappers win		
digitize exactly what is drawn on your map.			
	olid line identifying the source location. If the element occurrence or		
	ream, road or other feature, draw the boundary <u>precisely on the edge</u> of the		
feature.			
 Disjunct patches of the same element occurren 	ce should be represented as individual source features; each source feature		
should be drawn (and a reporting form comple	ted for each) as separate polygons. Label each source with a unique site		
name.	, 1 1 20		
If you are not certain you can draw the observe	ed area's exact location, draw a boundary line inclusive of the entire area		
	Draw as small an area as you can while still being certain it contains the		
	re possible, use features on the map such as roads, streams, contour lines,		
etc., to define ate this area. For example, draw a	a line along the stretch of trail where the EO was observed.		
Locational Uncertainty: How accurate is your depict	ction of the source's location on the map?		
Is the mapped location within 6m (20ft) of its actual lo			
If NO: The manned location is accurate to within	m or <u>ft</u> or <u>mi</u> of the actual location.		
Representational Accuracy (RA): Approximately l	now much of the mapped area is actually occupied by the element?		
For example, a plant EO occurring in closely spaced p	atches that is mapped as a single polygon encompassing a one acre area,		
while the plant of interest actually occupies only 20%	of this total area, would have an RA of Low (<=20%).		
	dium (>20%, <=80%)High (>80%, <=95%)Very High (>95%)		
	ved area represents the full extent of occupied habitat for the Element at		
that location? Y N ? (Y=confident that full extended)	nt is known; N= confident that full extent is <u>not</u> known; ?= uncertainty		
whether full extent is known). Comments:			
CLIDATEN INTEGRALATION			
SURVEY INFORMATION			
Surveyors (principle surveyor first; include first and last name):			
Phone #: () - E-mail address:			
Address:			
Address: Survey Date: (yyyy-mm-dd) Time: From: AM or PM (circle) to: AM or PM (circle) Last Observed: (yyyy-mm-dd) First Observed: (yyyy-mm-dd)			
Last Observed: (vvvv-mm-dd)	First Observed: (vvvv-mm-dd)		
Weather Conditions:	(),,,		

PLANTS OF CONSERVATION CONCERN REPORTING FORM Page 2

ELEMENT OCCURRENCE DATA			
Abundance:			
Actual number (individuals, clumps, or colonies) observed:			
Estimated number(s) and basis for estimates			
Estimated number(s) and basis for estimate: Area of Occupancy (fill in one):meters 2acresmiles2 Type of meters 2acres	pagnaments Preside or Estimat		
Condition (plants sterile, in bud, flower or fruit, evidence of disease or predation):	easurement:Precise orEstimate		
Condition (plants sterne, in bud, hower or fruit, evidence of disease or predation):			
Associated plant and/or animal species within observed area:			
General Description (habitat): Describe the physical setting/context surrounding the EO, inc	cluding a list of adjacent communities and		
surrounding land use.			
Landau Carta ta Daniel and a landau con a constant and a constant			
Landscape Context: Describe the degree of fragmentation and connectivity, species composit			
and abiotic factors in the surrounding area.			
Exotics present? Y N Describe their impact:			
CONSERVATION INFORMATION			
Name of Managed Area(s): A)B)BS EO completely within boundaries of Managed Area(s)? Yes or Partially (Y	C)		
Is EO completely within boundaries of Managed Area(s)? Yes or Partially (Y	or <i>P</i>) A) B) C)		
Public Owner(s):			
PrivateOwner(s):Owner Comments (include address/phone number):			
Owner Comments (include address/phone number):			
Management Comments (e.g., exotics, burn needed, hydrology, adjacent land use, cur	nulative effects etc):		
Current/Potential Threats and Protection Comments (e.g. logging, grazing, legal ac	etions/strategies needed to secure		
protection for the site):			
Monitoring and Research Needs:			
Additional Comments:			
Additional Comments.			
Form transcribed by (first and last name):	Date:		
Form completed by (BCD Updater) (first and last name):	Date:		
· · · · /			

Thank you for your assistance in helping maintain the Missouri Natural Heritage Program.

Return to: Resource Science Division – Heritage Zoologist Missouri Department of Conservation 1110 S. College Ave., Columbia, Missouri 65201 573-882-9909

ANIMALS OF CONSERVATION CONCERN REPORTING FORM

Instructions: Complete ONE form per visit per (source) location. ELEMENT IDENTIFICATION and LOCATION Identification problems: Y N Explain: _____ Photograph/slide taken? Y N Where has photo/slide been deposited? Specimen collected? Y N Collector, collection #, and repository: Survey site name: **Directions to the survey site** (include landmarks, roads, towns, distances, compass directions): County(ies): USGS Quadrangle names: ______ Twp Rng Sec ¹/₄ sec If using a GPS unit, please collect data in NAD83, zone 15: if unfeasible, indicate: NAD_____ zone ____ UTM: Northing (Y) OR: Latitude Longitude Explanation of possible GPS unit inaccuracy: **TOPOGRAPHIC MAP (mandatory):** Attach a copy of the topographic map or DOO (no county maps, please!) with the species' location marked. Please identify who marked the map (i.e., observer, transcriber, updater, or Heritage Biologist). Use the following guidelines to draw the source's location on the map as precisely as possible. Note: Heritage mappers will digitize exactly what is drawn on your map. • Use a fine tip pen to mark a pen point or thin solid line identifying the source location. If the element occurrence or source boundary follows the edge of a lake, stream, road or other feature, draw the boundary precisely on the edge of the feature Disjunct patches of the same element occurrence should be represented as individual source features; each source feature should be drawn (and a reporting form completed for each) as separate polygons. Label each source with a unique site If you are not certain you can draw the observed area's exact location, draw a boundary line inclusive of the entire area where you are certain the source was observed. Draw as small an area as you can while still being certain it contains the actual location of the observed element. Where possible, use features on the map such as roads, streams, contour lines, etc., to delineate this area. For example, draw a line along the stretch of trail where the EO was observed. Locational Uncertainty: How accurate is your depiction of the source's location on the map? Is the mapped location within 6m (20ft) of its actual location on the ground? Y N If NO: The marked location is accurate to within _____m or _____ft or _____mi of the actual location. Representational Accuracy (RA): Approximately how much of the mapped area is actually occupied by the element? For example, a single animal occurring somewhere within a one acre swampy area (EO mapped to the boundaries of the swamp), would have an RA of Low (<=20%). ___Unknown ___Low (>0%, <=20%) ___Medium (>20%, <=80%) ___High (>80%, <=95%) ___Very High (>95%) Confidence Extent: Are you confident that the observed area represents the full extent of occupied habitat for the Element at that location? Y N ? (Y=confident that full extent is known; N= confident that full extent is not known; ?= uncertainty whether full extent is known). **Comments:** SURVEY INFORMATION Surveyors (principle surveyor first; include first and last name):_____ Phone #: (___) ___ - ___ E-mail address: ____ Address: Source Feature (Descriptor) Name: Source Feature Locator(s) (i.e. UTM, site location ID, distance from known points, etc): Location Use Class (BCD Eotype) (e.g., breeding site, migratory stopover, hibernaculum, etc.): Survey Date: ____- (yyyy-mm-dd) Time: From: ____AM or PM (circle) to: ____AM or PM (circle) Last Observed: ____ - _ _ (yyyy-mm-dd) First Observed: ___ - _ _ (yyyy-mm-dd) Weather Conditions: Additional survey work needed? Y N If yes, explain:

ANIMALS OF CONSERVATION CONCERN REPORTING FORM Page 2

Sampling methodology (briefly describe traps, seining, call count, etc.):	
Sampling effort (e.g., # seine haul, # traps, search/hour, etc):	
External Measurements: Abundance: Actual number (number of adults, juveniles, dens, etc.) observed: Extimated number() and basis for actimates	
Estimated number(s) and basis for estimate: Population density (if practical): number: per areal unit: (i.e. meters², etc) Area of Occupancy (fill in one): meters² acres miles² Type of measurement: Precise or Is associated qualitative/quantitative data available (age, sex, mass, etc.)? Y N If "Yes", where is it located:	_Estimate
Condition (evidence of reproduction or disease/predation/injury):	
Associated plant and/or animal species within observed area:	
General Description (habitat): Describe the physical setting/context surrounding the EO, including a list of adjacent communities and surrounding land use.	
Landscape Context: Describe the degree of fragmentation and connectivity, species composition, biological structure, ecological processes, and abiotic factors in the surrounding area.	1
Exotics present? Y N Describe their impact:	
TOPOGRAPHY: Moisture: inundated	
CONSERVATION INFORMATION Name of Managed Area(s): A) B) C) Is EO completely within boundaries of Managed Area(s)? Yes or Partially (Y or P) A) B) Public Owner(s): BD PrivateOwner(s): BD Owner Comments (include address/phone number):	C)
Management Comments (e.g., exotics, burn needed, hydrology, adjacent land use, cumulative effects, etc.):	
Current/potential Threats and Protection Comments (e.g. logging, grazing, legal actions/strategies needed to secur protection for the site):	e
Monitoring and Research Needs :	
Additional Comments:	
Form transcribed by (first and last name): Date:	
Form transcribed by (first and last name): Date:	

Thank you for your assistance in helping maintain the Missouri Natural Heritage Program.

TERRESTRIAL NATURAL COMMUNITY REPORTING FORM

Instructions: Complete ONE form per visit per (source) location.

P -	or or a roun pe	or visit per (source)	1001111111	
ELEMENT IDENTIFICATION and LOCATION				
Scientific name: Identification problems: Y N If "Yes", explain: Photograph/slide taken? Y N Where has photo/slide been deposited? Survey site name: Directions to the survey site (include landmarks, roads, towns, distances, compass directions):				
USGS Quadrangle nam	ies:			1/4 sec
UTM: Northing (Y)		AD83, zone 15; if unfer OR:	Latitude	zone
				unty maps, please!) with the scriber, updater, or Heritage
 digitize exactly what is defined to the desired per boundary follows: Use a fine tip per boundary follows: Disjunct patches should be drawn name. If you are not cer where you are ce 	trawn on your map. In to mark a pen point is the edge of a lake, so of the same element of and a reporting form train you can draw the retain the source was on of the observed elements.	or thin solid line identify tream, road or other feat occurrence should be repared to complete for each) as the observed area's exact to be observed. Draw as small	ving the source location ure, draw the boundary presented as individual separate polygons. Lab ocation, draw a boundar an area as you can whi	2. Note: Heritage mappers will . If the element occurrence or source precisely on the edge of the feature. Source features; each source feature sel each source with a unique site ry line inclusive of the entire area alle still being certain it contains such as roads, streams, contour lines
Locational Uncertainty Is the mapped location w If NO: The mapped loca	within 6m (20ft) of its	actual location on the gr	ound? Y N	
For example, a glade EO while the natural commu	occurring in closely nity of interest actual	spaced patches that is mally occupies only 20% of	apped as a single polygo this total area, would h	ally occupied by the element? on encompassing a ten acre area, ave an RA of Low (<=20%). "95%"Very High (>95%)
that location? Y N ? whether full extent is kno-	Y (Y=confident that own). Comments:	full extent is known; N=	= confident that full ext	cupied habitat for the Element at ent is <u>not</u> known; ?= uncertainty
Phone #: () Address: Source Feature Name (veyor first; include fi E-mail Descriptor):	address:		
Survey Date: Last Observed:	(yyyy-mm-do (yyyy-mm	d) Time: From: n-dd) First Observ	AM or PM (circle)	to:AM or PM (circle) (yyyy-mm-dd)

TERRESTRIAL NATURAL COMMUNITY REPORTING FORM Page 2

Is associated qualitative/quantitative data available? Y N If "Yes", where is it located:
Method used (circle): Ocular estimate Quantitative transect or plot Condition: (Quality of biotic and abiotic factors/processes w/in the EO, such as stand maturity, species composition, stability of substrate, water quality, etc.). Comments:
Size: Area:acres Length:(incl. unit of measure) Width: (incl. unit of measure) Community significance (circle one): Significant Exceptional Notable General Description: Describe the physical setting/context of the EO, including a list of adjacent communities and surrounding land use.
Landscape Context: (Quality of biotic and abiotic factors/processes surrounding the EO, such as structure, extent, condition, fragmentation, hydrologic manipulation, etc.). Comments:
Species Composition: Indicate the Stratum that each species inhabits (e.g., tree, shrub, herb, non-vascular, other), Lifeform (e.g., herb – forb, graminoid, fern, etc.), and the Percent Cover .
Exotics present? Y N Describe their impact:
Natural and Anthropogenic Disturbances:
TOPOGRAPHY: Position: ridge upper slope mid slope lower slope bottom Aspect: N NE E NW S SE W SW Slope: flat 0-10 10-35 35+ vertical Geology Comments (substrate): Soil Type (s):
CONSERVATION INFORMATION Name of Managed Area(s): A B C C Is EO completely within boundaries of Managed Area(s)? Yes or Partially (Y or P) A B C C Public Owner(s): B C C C PrivateOwner(s): C C C Owner Comments (include address/phone number): C C C Owner Comments (include address/phone number): C C C C C C C C C C C C C C C C C C C
Management Comments (e.g., exotics, burn needed, hydrology, adjacent land use, cumulative effects, etc. Include urgency.):
Current/potential Threats and Protection Comments (e.g. logging, grazing, legal actions/strategies needed to secure protection for the site):
Monitoring and Research Needs :
Additional Comments:
Form transcribed by (complete name): Date: Form completed by (BCD Updater) (first and last name): Date:

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