

Little Rock District

Appendix C

Endangered Species Act Compliance

Federal and State Lists of Threatened and Endangered Species and Species of Conservation Concern

for

Beaver Lake

Proposed Land Acquisition Study

February 2022



United States Department of the Interior

FISH AND WILDLIFE SERVICE Arkansas Ecological Services Field Office 110 South Amity Suite 300 Conway, AR 72032-8975 Phone: (501) 513-4470 Fax: (501) 513-4480 http://www.fws.gov/arkansas-es



January 12, 2022

In Reply Refer To: Consultation Code: 04ER1000-2022-SLI-0428 Event Code: 04ER1000-2022-E-01292 Project Name: Beaver Lake Proposed Land Acquisition

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies endangered, threatened, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). **This letter only provides an official species list and technical assistance; if you determine that listed species and/or designated critical habitat may be affected in any way by the proposed project, even if the effect is wholly beneficial, consultation with the Service will be necessary.**

If you determine that this project will have no effect on listed species and their habitat in any way, then you have completed Section 7 consultation with the Service and may use this letter in your project file or application.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found on our website.

<u>Please visit our website at http://www.fws.gov/arkansas-es/IPaC/home.html for species-</u> <u>specific guidance to avoid and minimize adverse effects to federally endangered,</u> <u>threatened, proposed, and candidate species.</u> Our web site also contains additional information on species life history and habitat requirements that may be useful in project planning. If your project involves in-stream construction activities, oil and natural gas infrastructure, road construction, transmission lines, or communication towers, please review our project specific guidance at <u>http://www.fws.gov/arkansas-es/IPaC/ProjSpec.html</u>.

The karst region of Arkansas is a unique region that covers the **northern third of Arkansas** and we have specific guidance to conserve sensitive cave-obligate and bat species. **Please visit** <u>http://www.fws.gov/arkansas-es/IPaC/Karst.html</u> to determine if your project occurs in the karst region and to view karst specific-guidance. Proper implementation and maintenance of best management practices specified in these guidance documents is necessary to avoid adverse effects to federally protected species and often avoids the more lengthy formal consultation process.

If your species list includes any mussels, Northern Long-eared Bat, Indiana Bat, Yellowcheek Darter, Red-cockaded Woodpecker, or American Burying Beetle, your project may require a presence/absence and/or habitat survey prior to commencing project activities. Please check the appropriate species-specific guidance on our website to determine if your project requires a survey. We strongly recommend that you contact the appropriate staff species lead biologist (see office directory or species page) prior to conducting presence/absence surveys to ensure the appropriate level of effort and methodology.

Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service, to make "no effect" determinations. If you determine that your proposed action will have "no effect" on threatened or endangered species or their respective critical habitat, you do not need to seek concurrence with the Service. Nevertheless, it is a violation of Federal law to harm or harass any federally-listed threatened or endangered fish or wildlife species without the appropriate permit.

Through the consultation process, we will analyze information contained in a biological assessment that you provide. If your proposed action is associated with Federal funding or permitting, consultation will occur with the Federal agency under section 7(a)(2) of the ESA. Otherwise, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA (also known as a habitat conservation plan) is necessary to harm or harass federally listed threatened or endangered fish or wildlife species. In either case, there is no mechanism for authorizing incidental take "after-the-fact." For more information regarding formal consultation and HCPs, please see the Service's Consultation Handbook and Habitat Conservation Plans at www.fws.gov/endangered/esa-library/index.html#consultations.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, **the accuracy of this species list should be verified after 90 days.** This verification can be completed formally or informally as desired. The Service recommends that verification be

completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arkansas Ecological Services Field Office

110 South Amity Suite 300 Conway, AR 72032-8975 (501) 513-4470

Project Summary

Consultation Code:	04ER1000-2022-SLI-0428
Event Code:	Some(04ER1000-2022-E-01292)
Project Name:	Beaver Lake Proposed Land Acquisition
Project Type:	LAND - ACQUISITION
Project Description:	The purpose of the Beaver Lake Proposed Land Acquisition Study is to
	develop and evaluate alternatives to address the frequent inundation of
	private property during normal lake elevations.

Project Location:

Approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@36.255449999999966,-94.0209589692951,14z</u>



Counties: Arkansas

Endangered Species Act Species

There is a total of 14 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Gray Bat Myotis grisescens	Endangered
No critical habitat has been designated for this species.	
Species profile: <u>https://ecos.fws.gov/ecp/species/6329</u>	
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: <u>https://ecos.fws.gov/ecp/species/5949</u>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i>	Threatened
No critical habitat has been designated for this species.	
Species profile: <u>https://ecos.fws.gov/ecp/species/9045</u>	
Ozark Big-eared Bat <i>Corynorhinus (=Plecotus) townsendii ingens</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/7245</u>	Endangered

Birds

NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/10477</u>	Threatened
Piping Plover Charadrius melodus Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: <u>https://ecos.fws.gov/ecp/species/6039</u>	Threatened
Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. Species profile: <u>https://ecos.fws.gov/ecp/species/1864</u>	Threatened
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/758</u>	Experimental Population, Non- Essential
Fishes	
NAME	STATUS
Ozark Cavefish Amblyopsis rosae No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/6490</u>	Threatened
Clams NAME	STATUS

Neosho Mucket <i>Lampsilis rafinesqueana</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: <u>https://ecos.fws.gov/ecp/species/3788</u>	Endangered
Rabbitsfoot <i>Quadrula cylindrica cylindrica</i> There is final critical habitat for this species. The location of the critical habitat is not available. Species profile: <u>https://ecos.fws.gov/ecp/species/5165</u>	Threatened
Snuffbox Mussel <i>Epioblasma triquetra</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/4135</u>	Endangered

Insects

NAME

Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9743</u>

Flowering Plants

NAME

Missouri Bladderpod *Physaria filiformis* No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/5361</u>

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

STATUS

Candidate

STATUS

Threatened

Arkansas Natural Heritage Commission Division of Arkansas Heritage Department of Parks, Heritage and Tourism Elements of Special Concern within Five-mile Radius Beaver Lake, Arkansas

Scientific Name	Common Name	Federal Status	State Status	Global Rank	State Rank
Animals-Invertebrates					
Amblyscirtes belli	Bell's Roadside-Skipper	-	INV	G3G4	S3S4
Autochton cellus	Golden Banded-Skipper	-	INV	G4	S2S3
★ Caecidotea macropropoda	bat cave isopod	-	INV	G2G3	S2
★ Caecidotea steevesi	an isopod	-	INV	G3G4	S1
★ Caecidotea stiladactyla	an isopod	-	INV	G3G4	S3
Chlosyne gorgone	Gorgone Checkerspot	-	INV	G5	S3
Crosbyella roeweri	a cave obligate harvestman	-	INV	G1G2	S1
Dendrocoelopsis americana	a cave obligate planarian	-	INV	G2G3	S1
★ Faxonius longidigitus	Longpincered Crayfish	-	INV	G3G4	S3S4
Faxonius meeki brevis	Meek's Short Pointed Crayfish	-	INV	G4T3	S3
★ Faxonius nana	Midget Crayfish	-	INV	G3	S3
Faxonius williamsi	Williams Crayfish	-	INV	G3	S3
Fusconaia ozarkensis	Ozark Pigtoe	-	INV	G3G4	S3
★ Gastrocopta rogersensis	a land snail	-	INV	G3G4	S2
★ Heterosternuta sulphuria	Sulphur Springs diving beetle	-	INV	G1?	S1?
Ligidium elrodii	an isopod	-	INV	G4G5	S2
Pleurobema sintoxia	Round Pigtoe	-	INV	G4G5	S3
Polygonia progne	Gray Comma	-	INV	G5	S2S3
Ptychobranchus occidentalis	Ouachita Kidneyshell	-	INV	G3G4	S3
★ Stygobromus ozarkensis	Ozark cave amphipod	-	INV	G4	S2
Theliderma cylindrica	Rabbitsfoot	LT	SE	G3G4	S3
Toxolasma lividum	Purple Lilliput	-	INV	G3	S3
Trigenotyla parca	a cave obligate millipede	-	INV	G1G2	S1
Venustaconcha pleasii	Bleedingtooth Mussel	-	INV	G3G4	S3
Villosa iris	Rainbow	-	INV	G5	S3
Animals-Vertebrates					
★ Ambystoma annulatum	Ringed Salamander	-	INV	G4	S3
★ Carpiodes velifer	highfin carpsucker	-	INV	G4G5	S3
Centronyx henslowii	Henslow's Sparrow	-	INV	G4	S1B,S2N
★ Crotaphytus collaris	Eastern Collared Lizard	-	INV	G5	S2
★ Crystallaria asprella	crystal darter	-	INV	G3	S2
★ Cyprinella camura	bluntface shiner	-	INV	G5	SH
★ Etheostoma autumnale	autumn darter	-	INV	G4	S3
★ Etheostoma mihileze	sunburst darter	-	INV	G4	S3
★ Etheostoma teddyroosevelt	highland darter	-	INV	GNR	S3
★ Eurycea spelaea sp. A	Grotto Salamander, Eastern Clade	-	INV	G4TNR	S3
★ Haliaeetus leucocephalus	Bald Eagle	-	INV	G5	S3B,S4N
Lithobates areolatus	Crawfish Frog	-	INV	G4	S2

Scientific Name	Common Name	Federal Status	State Status	Global Rank	State Rank
$\checkmark \star$ Lithobates sylvaticus	Wood Frog	-	INV	G5	S3
√★ Myotis grisescens	gray bat	LE	SE	G4	S2S3
Myotis lucifugus	little brown bat	-	SE	G3	S1
$\checkmark \star$ Myotis septentrionalis	northern long-eared bat	LT	SE	G1G2	S1S2
√★ Myotis sodalis	Indiana bat	LE	SE	G2	S1
Nocomis asper	redspot chub	-	INV	G4	S3
√★ Notropis ozarcanus	Ozark shiner	-	INV	G3	S3
√★ Percina evides	gilt darter	-	INV	G4	S3
√★ Percina nasuta	longnose darter	-	INV	G3	S3
$\checkmark \star$ Plestiodon obsoletus	Great Plains Skink	-	INV	G5	S1
√★ Polyodon spathula	paddlefish	-	INV	G4	S3
√ Setophaga cerulea	Cerulean Warbler	-	INV	G4	S3B
✓ Sorex longirostris	southeastern shrew	-	INV	G5	S2
Terrapene ornata	Ornate Box Turtle	-	INV	G5	S2
Thryomanes bewickii	Bewick's Wren	-	INV	G5	S1B,S1S2N
√★ Troglichthys rosae	Ozark cavefish	LT	SE	G3	S1
Plants-Vascular					
√★ Acer saccharum var. nigrum	black maple	-	INV	G5T5	S1S2
√ Allium canadense var. lavendulare	tall pink glade onion	-	INV	G5TNR	S2
Allium cernuum	nodding wild onion	-	INV	G5	SH
√★ Amorpha canescens	lead-plant	-	INV	G5	S1
✓ Androsace occidentalis	rock-jasmine	-	INV	G5	S1
√★ Arabis hirsuta var. adpressipilis	hairy rockcress	-	INV	G5T4Q	S1?
√★ Argyrochosma dealbata	powdery cloak fern	-	INV	G4G5	S2
✓ Artemisia ludoviciana ssp. mexicana	white sagebrush	-	INV	G5T5?	S1S2
✓ Asarum canadense var. acuminatum	taper-tip wild ginger	-	INV	G5TNR	S2
Asclepias incarnata ssp. incarnata	swamp milkweed	-	INV	G5T5	S2
✓ Asclepias stenophylla	narrow-leaf milkweed	-	INV	G4G5	S1
Asplenium pinnatifidum	lobed spleenwort	-	INV	G4	S3
Asplenium x kentuckiense	Kentucky spleenwort	-	INV	GNA	SH
√★ Brickellia grandiflora	tassel-flower	-	INV	G5	S2
✓ Bromus nottowayanus	satin brome	-	INV	G4G5	S2
✓ Callirhoe bushii	Bush's poppy-mallow	-	INV	G3	S3
Calopogon oklahomensis	Oklahoma grass-pink	-	INV	G3	S2
Carex aggregata	cluster sedge	-	INV	G5	S1
Carex buxbaumii	brown bog sedge	-	INV	G5	S1
√ Carex careyana	Carey's sedge	-	INV	G4G5	S3
Carex conjuncta	soft fox sedge	-	INV	G4G5	S1
Carex conoidea	open-field sedge	-	INV	G5	S1
Carex emoryi	Emory's sedge	-	INV	G5	S1
✓ Carex gracilescens	slender wood sedge	-	INV	G5?	S2
√ Carex hirtifolia	hairy sedge	-	INV	G5	S3
✓ Carex hitchcockiana	Hitchcock's sedge	-	INV	G5	S1S2
Carex opaca	opaque prairie sedge	-	SE	G4	S2S3
Carex prasina	drooping sedge	-	INV	G4	SH

Carax sparanioldesbur-reed sadge-INVG5S3Carex timidatimid sedge-INVG2G4S23Callensia vernablue cohosh-INVG5S1Cataegus palmeriPalmer's hawthorn-INVGNRSNCrataegus palmeriPalmer's hawthorn-INVG5S1Crataegus palmeriarope dodder-INVG5S1Crataegus palmeriarope dodder-INVG3S2Cypripedim kentuckienseKentucky lady'selipper-INVG3S3Diaperia prolifera var, proliferabig-head rabbi-tobacco-INVG5TNRS1Dichanthelum roanokanseRoancke rosette grass-INVG3G5S3Ebernacea paradoxa var, paradoxayellow coneflower-STG3T3S2 <i>E Epinacea paradoxa var, paradoxa</i> yellow coneflower-INVG5TSS1 <i>E Epinacea paradoxa var, paradoxa</i> yellow coneflower-INVG5TSS1 <i>E Epinace paradoxa var, paradoxa</i> yellow coneflower-INVG5TSS1 <i>E Epinacia sublit</i> Wolf's spike-rush-INVG5TSS1 <i>E Epinacia situtu</i> war, capitatumwestmir wallflower-INVG5TSS1 <i>E Epinatis</i> mackenzizbiu wild rye-INVG5TSS2 <i>C entana alba</i> pale gentian-INVG4G5S2 <i>G entana</i>	So	cientific Name	ific Name Common Name		State Status	Global Rank	State Rank	
Carex timida timid sedge - INV G2G4 522 Caulophythum thalictroides blue cohosh - INV G5 52 Callophythum thalictroides blue-eyed Mary - INV G5 51 Cratageys phaenopyrum Washington hawthorn - INV G47 51 Cratageys phaenopyrum Washington hawthorn - INV G5 51 Cypripedium kentuckiense Kentucky ladys-slipper - INV G3 53 Diapenia prolifera var. prolifera blg-head rabbit-tobacco - INV G5TNR 51 Dichambelium reanochense Roanoke rosette grass - INV G47 51 Dirca decipiens Cozark leatherwood - INV G12 51 Echinaces paradoxa var. paradoxa yellow comflower - ST G473 53 / Eleocharis wolfii Wolf's spike-rush - INV G53 53 / Eleocharis wolfii Wolf's spike-rush - INV G55 53 / Elprons fignatis there-bank wild rye - INV G55 53 / Elprons inprivis ther-bank wild rye - INV G55 54 / Elprons inprivis ther-bank wild rye - INV G55 54 / Elprons inprivis ther-bank wild rye - INV G55 54 / Elprons inprivis ther-bank wild rye - INV G55 54 / Elprons inprivis ther-bank wild rye - INV G55 54 / Elprons inprivis ther-bank wild rye - INV G55 54 / Elprons inprivis ther-bank wild rye - INV G55 54 / Elpronsing alba pale gentian - INV G45 54 / Elpronsing alba pale gentian - INV G45 54 / Elpronsing alba pale gentian - INV G45 54 / Gentiana puberulenta downy gentian - INV G45 54 / Gentiana puberulenta downy gentian - INV G45 54 / Gentiana puberulenta downy gentian - INV G55 52 / Garduran wildsa war. parasana Arkanasa alumover - INV G55 52 / Latris punctata var. pubescens wild hop - INV G55 52 / Latris punctata var. pubescens wild hop - INV G55 52 / Latris punctata var. pubescens wild hop - INV G55 52 / Latris punctata var. pubescens wild hop - INV G55 52 / Latris punctata var. pubescens wild hop - INV G55 52 / Latris punctata var. punctata bottle-brush gaytesther - INV G55 52 / Latris punctata var. punctata bottle-brush gaytesther - INV G55 52 / Latris punctata var. punctata bottle-brush gaytesther - INV G55 52 / Latris punctata var. punctata bottle-brush gaytesther - INV G55 52 / Latris punctata var. punctata bottle-brush	,	Carex scoparia var. scoparia	pointed broom sedge	-	INV	G5T5	S1S2	
Caulophyllum thalictroides blue cohosh - INV G5 S2 Collinsia verna blue-eyed Mary - INV G5 S1 Crateagus planneri Palmer's hawthorn - INV G5 S1 Crateagus planneria rope dodder - INV G3 S2 Cypripodium kentuckiense Kentucky lady's-slipper - INV G3 S3 Diaperia prolifera var. prolifera big-head rabbit-tobacco - INV G1G2 S11 Dichanthelium roanokense Roanoke rosette grass - INV G1G2 S11 Dichanthelium roanokense Roanoke rosette grass - INV G3G5 S33 Ebercheris wolfii Wolf's spike-rush - INV G3G5 S33 Elprus churchi Church's wild rye - INV G5T S11 Elymus planicus river-bank wild rye - INV G5T S22 Elymus planicus river-bank wild rye - INV G5T S22 Elymus planicus raite trout-lity -	,	Carex sparganioides	bur-reed sedge	-	INV	G5	S3	
Collinsia vernablue-eyed Mary-INVG5S1Crategus palmeriPalmer's hawthorn-INVGNRSNCrategus palmeriPalmer's hawthorn-INVG47S1(* Cuscuta glomeratarope dodder-INVG3S2Cypripedium kentuckierseKentucky lady's-slipper-INVG3S3Diaparia profifera var, profiferabig-head rabbit-tobacco-INVG3S3Dichanthelium roanokenseRoanoke rosette grass-INVG162S1Dichanthelium roanokenseRoanoke rosette grass-INVG162S1Echinacce paradoxa var, paradoxayellow coneflower-STG3T3S2/* Elymus churchilChurch's wild rye-INVG5S1Elymus glaucus sap, mackenziiMackenzie's blue wild rye-INVG5S1Elymus inparlusriver-bank wild rye-INVG4C5S1Euphorbia missuricaMissouri spurge-INVG4C5S1Gentiana albapale gentian-INVG4G5S2Gillenia tirloitataBowman's-root-INVG5T5S2Gillenia tirloitak sap, occidentalisnaked-stem sunflower-INVG4G5S1Gentiana puberulentadowny gentian-INVG4G5S1Gentiana puberulentadowny gentian-INVG5T5S1(* Heuchera villos var, arA		Carex timida	timid sedge	-	INV	G2G4	S2S3	
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Commentation </td <td></td> <td>Euphorbia missurica</td> <td>Missouri spurge</td> <td>-</td> <td>INV</td> <td>G5</td> <td>S2</td>		Euphorbia missurica	Missouri spurge	-	INV	G5	S2	
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ControlGandularia bipinnatifida var. bipinnatifidaDakota vervain-INVG5T5S2C*Helianthus occidentalis ssp. occidentalis is sp. occidentalisnaked-stem sunflower-INVG5T5S1C*Heuchera villosa var. arkansanaArkansas alumroot-INVG5T3QS3C*Humulus lupulus var. pubescenswild hop-INVG5T4?S1Juglans cinereabutternut-INVG5T5S2Koeleria macranthaprairie June grass-INVG5T5S2C*Liatris punctata var. mucronatadotted gayfeather-INVG5T5S2Liatris scariosa var. nieuwlandiinorthern blazing-star-INVG5T5S2CLimnodea arkansanaOzark grass-INVG42S1C*Minuartia michauxiirock sandwort-INVG5S2Muhlenbergia bushiinodding muhly-INVG5S2Muhlenbergia flabriflorisinland muhly-INVG42S1C*Nemastylis nuttalliiNuttal's pleat-leaf-INVG42S1C*Nemastylis nuttalliiNuttal's pleat-leaf-INVG5S2Muhlenbergia claytoniinadding muhly-INVG42S1C*Nemastylis nuttalliiNuttal's pleat-leaf-INVG42S1C*Nemastylis nuttalliiNuttal's pleat-leaf-INV	,	Gentiana puberulenta	downy gentian	-	INV	G4G5	S2	
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Osmorhiza claytonii hairy sweet-cicely - INV G5 S15	*			-				
				-				
Pediomelum esculentum large Indian-breadroot - INV G5 S2				-			S1S3	
Penstemon cobaea showy beardtongue - INV G4 S3			-	-				

Scientific Name	entific Name Common Name		State Status	Global Rank	State Rank	
∕★ Perideridia americana	eastern yampah	-	INV	G4	S2	
/ Phlox amplifolia	broad-leaf phlox	-	INV	G3G5	S1	
/★ Phlox bifida	sand phlox	-	INV	G5?	S3	
Phyllanthus polygonoides	knotweed leaf-flower	-	INV	G5	S1	
/★ Physalis missouriensis	Missouri ground-cherry	-	INV	G5?	S1	
/ Physalis pumila	prairie ground-cherry	-	INV	G5	S1	
/★ Physaria filiformis	Missouri bladderpod	LT	INV	G3	S1	
Polygala incarnata	pink milkwort	-	INV	G5	S1S2	
/ Prenanthes alba	white rattlesnake-root	-	INV	G5	S1S2	
/ Prenanthes aspera	prairie rattlesnake-root	-	INV	G4?	S2S3	
Scleria muehlenbergii	Muhlenberg's nut-rush	-	INV	G5	S1S2	
/ Silene ovata	ovate-leaf catchfly	-	ST	G3	S3	
/ Silene regia	royal catchfly	-	ST	G3	S2	
/ Silphium integrifolium var. laeve	rosinweed	-	INV	G5T4?	S1	
/ Solidago gattingeri	Gattinger's goldenrod	-	INV	G3?Q	S1	
Solidago ptarmicoides	white flat-top goldenrod	-	INV	G5	S1S2	
/ Spiranthes magnicamporum	Great Plains ladies'-tresses	-	INV	G3G4	S1S2	
/ Stenanthium gramineum	featherbells	-	INV	G4G5	S3	
Symphyotrichum pilosum var. pringlei	Pringle's aster	-	INV	G5T5	S1	
/ Symphyotrichum sericeum	silvery aster	-	INV	G5	S2	
/ Tradescantia ozarkana	Ozark spiderwort	-	INV	G3	S3	
/ Trichophorum planifolium	bashful bulrush	-	INV	G4G5	S1	
Tridens muticus var. elongatus	slim tridens	-	INV	G5T4?	S1	
/ Trillium ozarkanum	Ozark trillium	-	INV	G3	S3	
/★ Ulmus thomasii	rock elm	-	INV	G5	S2	
Urtica gracilis	slender nettle	-	INV	G5	S1	
Utricularia subulata	zigzag bladderwort	-	INV	G5	S2	
∕ ★ Valerianella ozarkana	Ozark cornsalad	-	INV	G3	S3	
/★ Veratrum woodii	Wood's false hellebore	-	INV	G5	S3	
/ Vitis rupestris	rock grape	-	INV	G3	S1	
Special Elements-Natural Communit	ies					
Central Interior Highlands Calcareous Glade and Barrens		-	INV	GNR	S3	
Southwest Ozark Prairie and Woodland		-	INV	GNR	S1	
Special Elements-Other						
/★ Colonial nesting site, water birds		-	INV	GNR	SNR	

 \star - These elements of special concern have been recorded on Corps managed land at Beaver Lake

 \checkmark - These elements of special concern have been recorded within a one-mile radius of Beaver Lake

LEGEND

STATUS CODES

FEDERAL STATUS CODES

С	=	Candidate species. The U.S. Fish and Wildlife Service has enough scientific information to warrant proposing this species for listing as endangered or threatened under the Endangered Species Act.
LE	=	Listed Endangered; the U.S. Fish and Wildlife Service has listed this species as endangered under the Endangered Species Act.
LT	=	Listed Threatened; the U.S. Fish and Wildlife Service has listed this species as threatened under the Endangered Species Act.
-PD	=	Proposed for Delisting; the U.S. Fish and Wildlife Service has proposed that this species be removed from the list of Endangered or Threatened Species.
PE	=	Proposed Endangered; the U.S. Fish and Wildlife Service has proposed this species for listing as endangered.
РТ	=	Proposed Threatened; the U.S. Fish and Wildlife Service has proposed this species for listing as threatened.
T/SA	=	Threatened (or Endangered) because of similarity of appearance.

E/SA

STATE STATUS CODES

- INV = Inventory Element The Arkansas Natural Heritage Commission is currently conducting active inventory work on these elements. Available data suggests these elements are of conservation concern. These elements may include outstanding examples of Natural Communities or animal assemblages as well as plants and animals, which, according to current information, may be rare, peripheral, or of an undetermined status in the state. The ANHC is gathering detailed location information on these elements.
- WAT = Watch List Species; The Arkansas Natural Heritage Commission is not conducting active inventory work on these species, however, available information suggests they may be of conservation concern. The ANHC is gathering general information on status and trends of these elements. An "*" indicates the status of the species will be changed to "INV" if the species is verified as occurring in the state (this typically means the agency has received a verified breeding record for the species).
- MON = Monitored Species; The Arkansas Natural Heritage Commission is currently monitoring information on these species. These species do not have conservation concerns at present. They may be new species to the state, or species on which additional information is needed. The ANHC is gathering detailed location information on these elements
- SE = State Endangered; this term is applied differently for plants and animals.

Animals – These species are afforded protection under Arkansas Game and Fish Commission (AGFC) Regulation. The AGFC states that it is unlawful to import, transport, sell, purchase, hunt, harass or possess any threatened or endangered species of wildlife or parts. The AGFC lists as endangered any wildlife species or subspecies endangered or threatened with extinction, listed or proposed as a candidate for listing by the U.S. Fish and Wildlife Service or any native species or subspecies listed as endangered by the Commission.

Plants – These species have been recognized by the Arkansas Natural Heritage Commission as being in danger of being extirpated from the state. This is an administrative designation with no regulatory authority.

ST = State Threatened; These plant species have been recognized by the Arkansas Natural Heritage Commission as being likely to become endangered in Arkansas in the foreseeable future, based on current inventory information. This is an administrative designation with no regulatory authority.

DEFINITION OF RANKS Global Ranks

- G1 = Critically imperiled globally. At a very high risk of extinction due to extreme rarity, very steep declines, very severe threats or other factors.
- G2 = Imperiled globally. At high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats or other factors.
- G3 = Vulnerable globally. At moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
- G4 = Apparently secure globally At fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.

G5	=	Secure globally. At very low risk or extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.
GH	=	Of historical occurrence, possibly extinct globally. Known from only historical occurrences but still some hope of rediscovery.
GU	=	Unrankable. Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
GX	=	Presumed extinct globally. Not located despite intensive searches and virtually no likelihood of rediscovery.
GNR	=	Unranked. The global rank not yet assessed.
GNA	=	Not Applicable. A conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities.
T-RAN	IKS=	Infraspecific Taxon (trinomial) - The status of infraspecific taxa (subspecies or varieties) are indicated by a "T- rank" following the species' global rank. Rules for assigning T-ranks follow the same principles as those for GRANKS.

State Ranks

- S1 = Critically imperiled in the state. At very high risk of extirpation in the jurisdiction due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.
- S2 = Imperiled in the state. At high risk of extirpation in the jurisdiction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
- S3 = Vulnerable in the state. At moderate risk of extirpation in the jurisdiction due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
- S4 = Apparently secure in the state. At a fairly low risk of extirpation in the jurisdiction due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors.
- S5 = Secure in the state. At very low or no risk of extirpation in the jurisdiction due to a very extensive range, abundant populations or occurrences, with little to no concern from declines or threats.
- SH = Of historical occurrence in the state. Known from only historical records but still some hope of rediscovery. There is evidence that the species or ecosystem may no longer be present in the jurisdiction, but not enough to state this with certainty Examples of such evidence include (1) that a species has not been documented in approximately 20-40 years despite some searching and/or some evidence of significant habitat loss or degradation; (2) that a species or ecosystem has been searched for unsuccessfully, but not thoroughly enough to presume that it is no longer present in the jurisdiction.
- SU = Unrankable in the state. Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
- SX = Presumed extirpated from the state. Species or ecosystem not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
- SNR = Unranked. The state rank not yet assessed.

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SNA = Not Applicable. A conservation status rank is not applicable because the species or ecosystem is not a suitable target for conservation activities.

General Ranking Notes

- Q = A "Q" in the global rank indicates the element's taxonomic classification as a species is a matter of conjecture among scientists.
- RANGES= Ranges are used to indicate a range of uncertainty about the status of the element.
- ? = A question mark is used to denote an inexact numeric rank.
- B = Refers to the breeding population of a species in the state.
- N = Refers to the non-breeding population of a species in the state.