

**APPENDIX A**  
**Documentation of Federally Threatened and Endangered (T&E) and Regional Forester Sensitive (S) Wildlife Species Occurrences**  
**For**  
**Management of Cave Hill, Dennison Hollow, Stoneface Natural Areas, and Simpson Township Barrens Ecological Area and Adjacent Communities Project**  
**National Forest Lands in Hardin, Gallatin, Pope, Massac, Johnson, Williamson, and Saline Counties, Illinois**  
**Coding for Occurrence Analysis Results (OAR)**  
**November 2009**

O A R	Species Name	Common Name	Range on or near Shawnee NF	Habitat-Detail	Federal T&E, and Region Nine Sensitive	G Rank	Illinois State Rank	County	Threats/Misc. Comments
1	<i>Myotis grisescens</i>	Gray Bat	Big Grand Pierre Creek, Griffith Cave, Martin-Marietta Stone Quarry, Cave Spring Cave	Cave-summer and winter, Foraging-rivers, streams, and lakes adjacent to forests.	E	G3	S1	H,J,P	
6	<i>Myotis sodalis</i>	Indiana Bat	Simmons Creek Cave, Brasher Cave, Herod-private mine, Ellis Cave, Martin-Marietta Stone Quarry	Winter: caves, mines; Summer-snags; Foraging-small stream corridors with well developed riparian woods/upland and bottomland forests.	E	G2	S1	H,P,S	
1	<i>Sterna antillarum</i>	Least Tern		Bare alluvial and dredge spoil islands	E	G4T2Q	SNR	P,M	
2	<i>Hyla avivoca</i>	Bird-voiced Treefrog	Grantsburg Swamp, Cache River, Cypress Pond SNA, Little Black Slough, Bay Creek	Forested and swampy floodplains of large rivers and smaller streams that support cypress and tupelo trees.	S	G5	S3	P,J,S,H	Habitat fragmentation, loss of cypress-tupelo gum swamp
2	<i>Nerodia erythrogaster neglecta</i>	Northern Copperbelly Watersnake	Grantsburg Swamp, Massac SP, N. Fork of Saline River, Dixon Springs Agr. Exp. Sta., Smith Mines	Backwater sloughs, swamps, lowland lakes and ponds	S	G5T3	S2	P,J,G,M,S	

6	<i>Crotalus horridus</i>	Timber Rattlesnake		Heavy forest along rocky outcrops and bluffs	S	G4	S3	G,P,S,H,J	
2	<i>Ammodramus henslowii</i>	Henslow's Sparrow	Turpen , Pennant Bar, Wilson, Ashby Tracts	Grasslands- Prairie, abandoned fields and hayfields, tall-dense cover	S	G4	S2	P,S,J	
2	<i>Lanius ludovicianus migrans</i>	Migrant Loggerhead Shrike	Pennant Bar Tract	Open agricultural areas, grasslands, woody thick hedgerows	S	G4T3Q	S?	P,S	
2	<i>Dendroica cerulea</i>	Cerulean Warbler	Cache River	Mature bottomland forest, mature upland forest	S	G4	S3	J	
1	<i>Limnothlypis swainsonii</i>	Swainson's Warbler	Herron Pond NP, Reevesville, Fort Massac SP	Dense canopied forest with giant cane	S	G4	S1	M,J	
5	<i>Myotis austroriparius</i>	Southeastern Myotis	Martin-Marietta Stone Quarry, Cave Spring Cave	Caves, mines, and mature forested wetlands	S	G3G4	S1	H,P	Loss of mature wetland hardwood forest; disturbance to hibernacula
6	<i>Myotis leibii</i>	Eastern small-footed bat	Fink Standstone Barrens Ecological Area	Caves, mines, rock shelters, boulder fields, bridges	S	G3	S1	J	One male and one female found Nov. 4, 2005-first II. State record
6	<i>Corynorhinus rafinesquii</i>	<i>Rafinesque's big-eared bat</i>		Abandoned buildings, rock shelters, caves, mines, large hollow trees	S	GSG4	S1	J,P	Vandalism to caves and mines; destruction of abandoned buildings

1	<i>Neotoma floridana</i>	Eastern Wood Rat		Rocky outcrops, rock ledges, cave-like depressions, rocky crevices, and old buildings in association with late successional hardwood forest.	SE	G5	S1	S,G	Experimental populations reintroduced into Garden of the Gods and Pounds Hollow/Rim Rock areas in 2004; long-term status still unknown.
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**LEGEND FOR TES SPECIES IN OCCURRENCE ANALYSIS RESULTS (OAR):**

***OAR Codes:***

- 1=Project located out of species known range.
- 2=Lack of suitable habitat for species in project area.
- 3=Suitable habitat present, species was searched for during field surveys, but not found.
- 4=Species occurs in project area, but outside of activity area.
- 5=Field surveys located species in proposed activity area.
- 6=Species not seen/found during field survey, but could possibly occur in activity area based on habitat observed; or, field survey not conducted when species is recognizable (time of year or time of day). Therefore, assume presence and no additional surveys are needed.
- 7=Aquatic species or habitat known or suspected downstream of project activity area, but outside of projected water cumulative effects analysis area (defined as point below which sediment amounts are immeasurable and insignificant).
- 8=Aquatic species or habitat known or suspected downstream of project activity area, but inside projected water cumulative effects analysis area.

***Definition of Terms:***

**Species**=The term "species" includes any subspecies of fish or wildlife, and any distinct population segment of any species of vertebrate, invertebrate, or mussel, which interbreeds when mature. (Endangered Species Act of 1973, as amended through the 100<sup>th</sup> Congress).

**Range**=The geographical distribution of a species. For use here "range" is expressed as where a species is known or expected to occur on or near the Shawnee National Forest in terms of landform (feature name, physiographic province), political boundary (county name), or watershed (river, or stream name).

**Habitat**=A place where the physical and biological elements of ecosystems provide a suitable environment and the food, cover, and space resources needed for plant and animal livelihood (FSM 2605-91-8, pg. 10 of 13). **Global Rank**=Global ranks are assigned by a consensus of the network of natural heritage programs, scientific experts, and the Nature Conservancy to designate a rarity based on the range-wide status of a species or variety. This system was developed by the Nature Conservancy and is widely used by other agencies and organizations as the best available scientific and objective assessment of taxon rarity and level of threat to its existence. The ranks are assigned after considering a suite of factors including number of occurrences, numbers of individuals, and severity of threats.

**G1**=Extremely rare and critically imperiled with 5 or fewer occurrences or very few remaining individuals; or because of some factor(s) making it especially vulnerable to extinction.

**G2**=Very rare and imperiled with 6 to 20 occurrences or few remaining individuals; or because of some factor(s) making it especially vulnerable to extinction.

**G3**=Either very rare and local throughout its range or found locally (even abundantly at some of its locations) in a restricted range; or vulnerable to extinction because of other factors. Usually fewer than 100 occurrences are documented.

**G4**=Common and apparently secure globally, though it may be rare in parts of its range, especially at the periphery.

**G5**=Very common and demonstrably secure globally, though it may be rare in parts of its range, especially at the periphery.

**GH**=Formally part of the world's biota with the exception that it may be rediscovered.

**GX**=Believed extinct throughout its range with virtually no likelihood of rediscovery.

**GU**=Possibly rare, but status uncertain and more data needed.

**G?**=Unranked, or, if following a ranking, ranking uncertain (ex. G3?).

**G\_Q**=The taxon has a questionable taxonomic assignment, such as G3Q.

**G\_T**—Signifies the rank of a subspecies or variety. For example, G5T1 would apply to a subspecies of a species that is demonstrably secure globally (G5) but the subspecies warrants a rank of T1, critically imperiled.

**State Rank:** The following ranks are used by the Illinois Department of Conservation to set protection priorities for natural heritage resources. Natural Heritage Resources (NHR's) are rare plant and animal species, rare and exemplary natural communities, and significant geologic features. The criterion for ranking NHR's is the number of populations or occurrences, i.e. the number of known distinct localities; the number of individuals in existence at each locality or, of a highly mobile organism (e.g. sea turtles, many birds, and butterflies), the total number of individuals; the quality of the occurrences, the number of protected occurrences; and threat.

- **S1** – Extremely rare; usually 5 or fewer populations or occurrences in the state; or may be a few remaining individuals; often especially vulnerable to extirpation.
- **S2** – Very rare; usually between 5 and 20 populations or occurrences; or with many individuals in fewer occurrences; often susceptible to becoming extirpated.
- **S3** – Rare to uncommon; usually 20 and 100 populations or occurrences; may have fewer occurrences, but with a large number of individuals in some populations; may be susceptible to large-scale disturbances.
- **S4** – Common; usually >100 populations or occurrences, but may be fewer with many large populations; may be restricted to only a portion of the state; usually not susceptible to immediate threats.
- **S5** – Very common; demonstrably secure under present conditions.
- **SA** – Accidental in the state.
- **S#B** – Breeding status of an organism within the state.
- **SH** – Historically known from the state, but not verified for an extended period, usually >15 years; this rank is used primarily when inventory has been attempted recently.
- **S#N** – Non-breeding status within the state. Usually applied to winter resident species.
- **SR** – Reported for Illinois, but without persuasive documentation that would provide a basis for either accepting or rejecting the report.
- **SU** – Status uncertain, often because of low search effort or cryptic nature of the element.
- **SX** – Apparently extirpated from the state.
- **SZ** – Long distant migrant, whose occurrences during migration are too irregular, transitory and/or dispersed to be reliably identified, mapped and protected.
- **SN** – Not ranked, under review

These ranks should not be interpreted as legal descriptions.

**County:**

**P**=Pope; **S**=Saline; **H**=Hardin; **G**=Gallatin; **J**=Johnson; **M**=Massac; **W**=Williamson.

**T**-Listed as Federally threatened by the US Fish and Wildlife Service.

**E**-Listed as Federally endangered by the US Fish and Wildlife Service.

**S**-Region Nine-Regional Forester's Sensitive Species list. The specific species included in the Regional Forester's Sensitive species list may periodically change as additional status reviews are completed by the Shawnee NF and the regional office.

\* Species has been de-listed by the U.S. Fish and Wildlife Service.