

SUPPLEMENTAL INFORMATION

**HERPETOFAUNA OF CATOOSA WILDLIFE MANAGEMENT AREA
AND SPECIES-AREA RELATIONSHIPS OF REPTILES AND
AMPHIBIANS ACROSS TENNESSEE, USA**

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TABLE S1. Diversity of herpetofaunal species across different ecoregions of Tennessee. The studies by Niemiller et al. (2011), Davenport and Scott (2009), Niemiller (2005), Miller et al. (2005), Scott and Snyder (1968), Zirkle (1993), Fitch (1998), and Scott (1991) are of areas within the Interior Plateau ecoregion of Tennessee; whereas those by Giffen et al. (2009) and Jessee et al. (2022) are within the Ridge and Valley ecoregion of Tennessee.

Species	Common Name	Current study	Niemiller et al. 2011	Davenport and Scott 2009	Niemiller 2005	Miller et al. 2005	Giffen et al. 2009	Scott and Snyder 1968	Zirkle 1993	Fitch 1998	Scott 1991	Jessee et al. 2022
Caudata												
<i>Ambystoma barbouri</i>	Streamside Salamander		•									
<i>Ambystoma maculatum</i>	Spotted Salamander		•	•	•	•	•	•	•			•
<i>Ambystoma opacum</i>	Marbled Salamander		•		•	•	•	•	•			
<i>Ambystoma talpoideum</i>	Mole Salamander				•	•		•	•			
<i>Ambystoma texanum</i>	Small-mouthed Salamander					•		•	•			
<i>Ambystoma tigrinum</i>	Tiger Salamander		•		•	•		•	•			
<i>Aneides aeneus</i>	Green Salamander		•									
<i>Cryptobranchus alleganienis</i>	Hellbender							•	•			•
<i>Desmognathus conanti</i>	Spotted Dusky Salamander			•			•					
<i>Desmognathus fuscus</i>	Northern Dusky Salamander				•		•	•	•		•	•

<i>Pseudacris feriarum</i>	Upload Chorus Frog	•	•	•	•		•	•	•		•
<i>Scaphiopus holbrookii</i>	Eastern Spadefoot	•		•	•		•				
Squamates											
<i>Agkistrodon contortrix</i>	Eastern Copperhead	•	•	•	•	•	•	•	•		•
<i>Agkistrodon piscivorus</i>	Northern Cottonmouth						•				
<i>Aspidoscelis sexlineata</i>	Six-lined Racerunner	•			•		•				
<i>Carphophis amoenus</i>	Eastern Worm Snake	•	•	•	•		•	•	•	•	•
<i>Cemophora coccinea</i>	Scarlet Snake	•			•						
<i>Coluber constrictor</i>	North American Racer	•	•	•	•		•	•	•	•	•
<i>Crotalus horridus</i>	Timer Rattlesnake	•		•		•	•				
<i>Diadophis punctatus</i>	Ring-necked Snake	•	•	•	•	•	•	•	•	•	•
<i>Heterodon platirhinos</i>	Eastern Hognose Snake				•		•	•			
<i>Lampropeltis calligaster</i>	Prairie Kingsnake			•	•		•	•			
<i>Lampropeltis nigra</i>	Black Kingsnake	•	•	•	•	•	•	•			
<i>Lampropeltis triangulum</i>	Milk Snake	•	•				•	•			•

<i>Tantilla coronata</i>	Southeastern Crowned Snake	•				•						
<i>Thamnophis saurita</i>	Eastern Ribbon Snake			•	•		•					
<i>Thamnophis sirtalis</i>	Common Garter Snake	•	•	•	•		•	•	•	•	•	
Testudines												
<i>Apalone spinifera</i>	Spiny Softshell Turtle	•		•	•	•	•		•		•	
<i>Chelydra serpentina</i>	Common Snapping Turtle	•		•	•	•	•		•		•	
<i>Chrysemys picta</i>	Painted Turtle						•		•		•	
<i>Graptemys geographica</i>	Northern Map Turtle	•		•	•		•				•	
<i>Kinosternon subrubrum</i>	Eastern Mud Turtle				•		•					
<i>Pseudemys concinna</i>	River Cooter				•							
<i>Sternotherus minor</i>	Loggerhead Musk Turtle											
<i>Sternotherus odoratus</i>	Common Musk Turtle	•		•	•	•	•	•	•		•	
<i>Terrapene carolina</i>	Eastern Box Turtle	•	•	•	•	•	•	•	•	•	•	
<i>Trachemys scripta</i>	Pond Slider	•	•	•	•	•	•	•	•		•	

TABLE S2. Herpetofaunal diversity and relative abundance (R = rarely encountered; U = uncommonly encountered; and C = commonly encountered) documented in both the current and Meade (2005) studies conducted within the Southwestern Appalachians ecoregion of Tennessee. We informally characterized species as R = rarely encountered, U = uncommonly encountered, and C = commonly encountered based on observed count data (detailed in Supplemental Table X) and qualitative assessments of uncountable observations. While we recorded direct counts, these numbers may not fully reflect true abundance—some species were frequently detected through auditory surveys, suggesting higher numbers than observed, while others may have been overrepresented due to repeated encounters with unmarked individuals. This list also includes previously recorded findings in Morgan and Cumberland counties (Redmond and Scott. 1996. *op. cit.*; Scott and Redmond. 2008. *op. cit.*).

Species	Common Name	Current study	Morgan Co.	Cumberland Co.	Meade 2005
Caudata					
<i>Ambystoma maculatum</i>	Spotted Salamander				•
<i>Ambystoma opacum</i>	Marbled Salamander	U	•	•	
<i>Ambystoma talpoideum</i>	Mole Salamander	U		•	

<i>Aneides aeneus</i>	Green Salamander	U	•	•	•
<i>Desmognathus abditus</i>	Cumberland Dusky Salamander		•	•	•
<i>Desmognathus fuscus</i>	Northern Dusky Salamander	C	•	•	
<i>Desmognathus monticola</i>	Seal Salamander		•		
<i>Desmognathus ochrophaeus</i>	Allegheny Mountain Dusky Salamander		•	•	
<i>Desmognathus welteri</i>	Black Mountain Salamander		•	•	•
<i>Cryptobranchus alleganiensis</i>	Hellbender			•	
<i>Eurycea cirrigera</i>	Southern Two-lined Salamander	C	•	•	•
<i>Eurycea longicauda</i>	Long-tailed Salamander	C	•	•	•
<i>Eurycea lucifuga</i>	Cave Salamander			•	
<i>Eurycea wilderae</i>	Blue Ridge Two-lined Salamander		•	•	

<i>Gyrinophilus porphyriticus</i>	Spring Salamander		•	•	
<i>Hemidactylium scutatum</i>	Four-toed Salamander			•	
<i>Necturus maculosus</i>	Common Mudpuppie		•		
<i>Notophthalmus viridescens</i>	Eastern Newt	C	•	•	•
<i>Plethodon cylindraceus</i>	White-spotted Slimy Salamander		•	•	
<i>Plethodon dorsalis</i>	Northern Zigzag Salamander	C		•	•
<i>Plethodon glutinosus</i>	Northern Slimy Salamander	C	•	•	•
<i>Pseudotriton montanus</i>	Mud Salamander			•	
<i>Pseudotriton ruber</i>	Red Salamander	R	•	•	•
Anurans					
<i>Acris crepitans</i>	Northern Cricket Frog	C	•	•	•

<i>Anaxyrus americanus</i>	American Toad	C	•	•	•
<i>Anaxyrus fowleri</i>	Fowler's Toads	C	•	•	•
<i>Gastrophryne carolinensis</i>	Eastern Narrow-mouthed Toad	U		•	
<i>Hyla chrysoscelis</i>	Cope's Gray Treefrog	C		•	•
<i>Lithobates catesbeianus</i>	American Bullfrog	C	•	•	•
<i>Lithobates clamitans</i>	Green Frog	C	•	•	•
<i>Lithobates palustris</i>	Pickerel Frog			•	•
<i>Lithobates sylvaticus</i>	Wood Frog	R	•		•
<i>Pseudacris crucifer</i>	Spring Peeper	C		•	•
<i>Pseudacris feriarum</i>	Upland Chorus Frog			•	
<i>Scaphiopus holbrookii</i>	Eastern Spadefoot	R	•	•	

Squamates

<i>Agkistrodon contortrix</i>	Eastern Copperhead	C	•	•	•
<i>Carphophis amoenus</i>	Eastern Worm Snake	U	•	•	•
<i>Cemophora coccinea</i>	Scarlet Snake			•	
<i>Coluber constrictor</i>	North American Racer	C	•	•	•
<i>Crotalus horridus</i>	Timber Rattlesnake	C	•	•	•
<i>Diadophis punctatus</i>	Ring-necked Snake	C	•	•	•
<i>Heterodon platirhinos</i>	Eastern Hognose Snake	R	•		
<i>Lampropeltis nigra</i>	Black Kingsnake			•	
<i>Lampropeltis triangulum</i>	Milk Snake	U	•	•	
<i>Nerodia sipedon</i>	Common Watersnake	C	•	•	•

<i>Opheodrys aestivus</i>	Rough Green Snakes	U			
<i>Ophisaurus attenuatus</i>	Slender Glass Lizard	U		•	
<i>Pantherophis spiloides</i>	Gray Ratsnake	C	•	•	•
<i>Pituophis melanoleucus</i>	Pine Snake		•	•	
<i>Plestiodon fasciatus</i>	Common Five-lined Skink	C	•	•	•
<i>Regina septemvittata</i>	Queen Snake	U		•	
<i>Sceloporus undulatus</i>	Eastern Fence Lizard	C	•	•	•
<i>Scincella lateralis</i>	Little Brown Skink	C	•	•	•
<i>Storeria dekayi</i>	DeKay's Brown Snake			•	
<i>Storeria occipitomaculata</i>	Redbelly Snake	U	•	•	•
<i>Thamnophis sirtalis</i>	Common Garter Snake	U	•	•	•

Testudines

<i>Chelydra serpentina</i>	Common Snapping Turtle	C	•	•	
<i>Chrysemys picta</i>	Painted Turtle	R			•
<i>Sternotherus minor</i>	Loggerhead Musk Turtle	R	•	•	
<i>Sternotherus odoratus</i>	Common Musk Turtle		•	•	
<i>Terrapene carolina</i>	Common Box Turtle	C	•	•	•
<i>Trachemys scripta</i>	Pond Slider	U	•		

TABLE S3. Supplemental list of species observed in the current study along with number of individuals found. The reported species numbers do not represent abundance and reflect observed counts, recognizing that some common species may be underrepresented due to sampling limitations.

Species	Common Name	Observed	Species	Common Name	Observed
Caudata			Squamates		
<i>Ambystoma opacum</i>	Marbled Salamander	9	<i>Agkistrodon contortrix</i>	Eastern Copperhead	32
<i>Ambystoma talpoideum</i>	Mole Salamander	4	<i>Carphophis amoenus</i>	Eastern Worm Snake	4
<i>Aneides aeneus</i>	Green Salamander	11	<i>Coluber constrictor</i>	North American Racer	12
<i>Desmognathus fuscus</i>	Northern Dusky Salamander	20	<i>Crotalus horridus</i>	Timber Rattlesnake	28
<i>Eurycea cirrigera</i>	Southern Two-lined Salamander	17	<i>Diadophis punctatus</i>	Ring-necked Snake	13
<i>Eurycea longicauda</i>	Long-tailed Salamander	6	<i>Heterodon platirhinos</i>	Eastern Hognose Snake	1
<i>Notophthalmus viridescens</i>	Eastern Newt	14	<i>Lampropeltis triangulum</i>	Milk Snake	9
<i>Plethodon dorsalis</i>	Northern Zigzag Salamander	13	<i>Nerodia sipedon</i>	Common Watersnake	26
<i>Plethodon glutinosus</i>	Northern Slimy Salamander	15	<i>Opheodrys aestivus</i>	Rough Green Snake	3
<i>Pseudotriton ruber</i>	Red Salamander	1	<i>Ophisaurus attenuatus</i>	Slender Glass Lizard	5
Anurans			<i>Pantherophis spiloides</i>	Gray Ratsnake	13

<i>Acris crepitans</i>	Northern Cricket Frog	62	<i>Plestiodon fasciatus</i>	Common Five-lined Skink	7
<i>Anaxyrus americanus</i>	American Toad	20	<i>Regina septemvittata</i>	Queen Snake	1
<i>Anaxyrus fowleri</i>	Fowler's Toad	20	<i>Sceloporus undulatus</i>	Eastern Fence Lizard	40
<i>Gastrophryne carolinensis</i>	Eastern Narrow-mouthed Toad	4	<i>Scincella lateralis</i>	Little Brown Skink	13
<i>Hyla chrysoscelis</i>	Cope's Gray Treefrog	60	<i>Storeria occipitomaculata</i>	DeKay's Brown Snake	4
<i>Lithobates catesbeianus</i>	American Bullfrog	50	<i>Thamnophis sirtalis</i>	Common Garter Snake	1
<i>Lithobates clamitans</i>	Green Frog	50	Testudines		
<i>Lithobates sylvaticus</i>	Wood Frog	1	<i>Chelydra serpentina</i>	Common Snapping Turtle	6
<i>Pseudacris crucifer</i>	Spring Peeper	16	<i>Chrysemys picta</i>	Painted Turtle	1
<i>Scaphiopus holbrookii</i>	Eastern Spadefoot	3	<i>Sternotherus minor</i>	Loggerhead Musk Turtle	1
			<i>Terrapene carolina</i>	Common Box Turtle	14
			<i>Trachemys scripta</i>	Pond Slider	3
