

FINAL REPORT:

Amphibian and Reptile Survey for Pea Ridge National Military Park

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The objectives of our survey were to (1) inventory the herpetofauna of Pea Ridge National Military Park over the course of one year and (2) teach the park's resource manager how to implement standard herpetological inventory and monitoring techniques. Using a combination of visual searches, drift fences with pitfall traps, and drift fences with funnel traps, we inventoried 18 amphibian species (see Table 1) and 21 reptile species (see Table 2) during the year 2000. The park's resource manager, Zack Holden, participated in several of the visual searches, in the implementation of the drift fences, and with monitoring the traps associated with the drift fences. Thus, our survey objectives were adequately met.

Amphibian and reptile species we did not find during the course of the survey that are probably/possibly found within park boundaries are listed in Table 3. Species delineated in this table have geographic ranges that encompass the park boundaries or end near the park boundaries. We have assigned a probably or possibly occurring designation to each species based on two criteria: whether or not the park appears to have suitable habitat for the species and whether or not there are historical records for the species in northwest Arkansas. This listing is not intended to represent every amphibian or reptile species that may be in the park, but it should serve as a guide for future herpetological surveys within the park. We recommend that the park officials keep a watchful eye out for four of these species in particular: the crawfish frog (*Rana areolata*), the tiger salamander (*Ambystoma tigrinum*), the ornate box turtle (*Terrapene omata*), and

the timber rattlesnake (*Crotalus horridus*). These four species have declined throughout portions of their range and are in need of conservation.

Table 1. Scientific and common names of amphibians located on Pea Ridge National Military Park during the survey.

Scientific Name:	Common Name:
<i>Notophthalmus viridescens louisianensis</i>	Central Newt
<i>Ambystoma maculatum</i>	Spotted Salamander
<i>Plethodon dorsalis angusticlavius</i>	Ozark Zigzag Salamander
<i>Plethodon albaqula</i>	Western Slimy Salamander
<i>Eurycea multiplicata griseogaster</i>	Graybelly Salamander
<i>Eurycea lucifuga</i>	Cave Salamander
<i>Eurycea longicauda melanopleura</i>	Dark-sided Salamander
<i>Bufo americanus charlesmithi</i>	American Toad
<i>Gastrophryne carolinensis</i>	Eastern Narrowmouth Toad
<i>Pseudacris crucifer</i>	Spring Peeper
<i>Pseudacris triseriata feriarum</i>	Upland Chorus Frog
<i>Acris crepitans blanchardi</i>	Blanchard's Cricket Frog
<i>Hyla versicolor</i>	Gray Treefrog
<i>Rana sylvatica</i>	Wood Frog
<i>Rana utricularia</i>	Southern Leopard Frog
<i>Rana palustris</i>	Pickerel Frog
<i>Rana clamitans melanota</i>	Green Frog
<i>Rana catesbeiana</i>	Bullfrog

Table 2. Scientific and common names of reptiles located on Pea Ridge National Military Park during the survey.

Scientific Name:	Common Name:
<i>Terrapene carolina triunguis</i>	Three-toed Box Turtle
<i>Chelydra serpentina serpentina</i>	Common Snapping Turtle
<i>Sceloporus undulatus hyacinthinus</i>	Northern Fence Lizard
<i>Scincella lateralis</i>	Ground Skink
<i>Eumeces fasciatus</i>	Five-lined Skink
<i>Eumeces laticeps</i>	Broadhead Skink
<i>Nerodia sipedon sipedon</i>	Northern Water Snake
<i>Nerodia erythrogaster transversa</i>	Blotched Water Snake
<i>Storeria occipitomaculata occipitomaculata</i>	Northern Redbelly Snake
<i>Thamnophis sirtalis sirtalis</i>	Eastern Garter Snake
<i>Thamnophis proximus proximus</i>	Western Garter Snake
<i>Diadophis punctatus</i>	Ringneck Snake
<i>Carphophis vermis</i>	Western Worm Snake
<i>Heterodon platirhinos</i>	Eastern Hognose Snake
<i>Coluber constrictor flaviventris</i>	Eastern Yellowbelly Racer
<i>Elaphe obsoleta obsoleta</i>	Black Rat Snake
<i>Lampropeltis calligaster calligaster</i>	Prairie Kingsnake
<i>Lampropeltis getula holbrooki</i>	Speckled Kingsnake
<i>Lampropeltis triangulum</i>	Milk Snake
<i>Agkistrodon contortrix</i>	Copperhead
<i>Sistrurus miliarius streckeri</i>	Western Pigmy Rattlesnake

Table 3. Herpetofauna probably/possibly found within park boundaries, but not found during the year 2000 survey.

Species Name:	Common Name:	Occurrence within park:
<i>Ambystoma annulatum</i>	Ringed salamander	Possible: This species breeds in the autumn (September and October) during rainy nights in fishless ponds. All ponds on the park were checked for both adults and larvae during the survey. It is likely that this species could be found on the park, however, most of the museum records in the area were in Washington County and southwest Benton County.
<i>Ambystoma tigrinum</i>	Tiger salamander	Possible: Although the range for this species includes the park, museum records indicate that no specimens have been collected since 1975 in northwest Arkansas. It is unlikely that this species still occurs in northwest Arkansas.
<i>Scaphiopus holbrookii</i>	Hurter's Spadefoot Toad	Possible: This species breeds after heavy rainfall (>2 inches) during late spring into summer in shallow ephemeral pools. Specimens have been collected in the Farmington area (west of Fayetteville) approximately 25 years ago. No records were recorded for Benton County. It would be very unlikely to find this species in the area.
<i>Bufo woodhousii</i>	Fowler's Toad	Probable: Although no records exist for eastern Benton County, it is probable that this species does occur on the park. Fowler's toads typically breed in ponds and ditches during April and May.
<i>Rana areolata</i>	Northern Crawfish Frog	Possible: Closest records for the area exist in southwest Benton County. This species is a prairie relict. Therefore, it is possible that a population may occur on the park. Searching for this species should occur in February and March after heavy rainfalls on warm nights.
<i>Sternotherus odoratus</i>	Common Musk Turtle	Probable: Musk turtles are usually the most abundant turtles in ponds. However, we never trapped (hoop-net) or sighted this species in any ponds. It is likely that this species is on the park, but we were surprised not to catch any.
<i>Trachemys scripta</i>	Red-eared Slider	Probable: As with musk turtles, this species can be quite abundant in a variety of habitats, but was never trapped or seen basking in any ponds within the park.
<i>Terrapene ornata</i>	Ornate Box Turtle	Possible: Like the crawfish frog, this species is a prairie relict. Although it is possible to find this species in the park, only a few, historic records exist in northwest Arkansas.
<i>Crotaphytus collaris</i>	Eastern Collared Lizards	Possible: Although there are a few records of this species in the area, this species prefers open glades with large flat rocks. Collared lizards disappeared when glades were overgrown by cedars. Most likely this glade habitat never existed on the park. Collared lizards are most active during the heat of the summer.
<i>Eumeces anthracinus</i>	Southern Coal Skink	Probable: There are numerous records for this species in northwest Arkansas. This species probably exists on the park. Coal skinks are most often found in open woodlands from mid-March into September.
<i>Eumeces obsoletus</i>	Great Plains Skink	Possible: A few, historic records of this species exist in Benton County. This species is also a prairie relict and probably is extirpated from the state. The extirpation is probably due to the removal of native prairies of northwest Arkansas.
<i>Cnemidophorus sexlineatus</i>	Prairie Racerunner	Probable: As with the coal skink, numerous records exist for northwest Arkansas. This species is typically found in disturbed habitats along roadsides and railroads. This species probably exists on the park, however, we were surprised not to see any along the road around the park.

Table 3. Continued.

Species Name:	Common Name:	Occurrence within park:
<i>Ophisaurus attenuatus</i>	Western Slender Glass Lizard	Possible: A few, isolated records exist in northwest Arkansas. This species is also a prairie relict and is very secretive. There is a possibility that this species may be found within the park, especially on the restored native prairie during the summer.
<i>Regina septemvittata</i>	Queen Snake	Possible: Although this species range includes the Ozarks, it is probably extirpated from the state. This species prefers riparian areas along streams in the Ozarks. Therefore, it is very unlikely to be found on the park.
<i>Storeria dekayi</i>	Brown Snake	Probable: There are numerous records scattered throughout the region for these small snakes, so it is probable that they occur within the park. These snakes are usually locally abundant and, therefore, can be found by flipping rocks and logs during spring and summer.
<i>Virginia striatula</i>	Rough Earth Snake	Probable: There are numerous records scattered throughout the region for these small snakes, so it is probable that they occur within the park. These snakes are usually locally abundant and, therefore, can be found by flipping rocks and logs during spring and summer.
<i>Virginia valeriae</i>	Smooth Earth Snake	Probable: There are numerous records scattered throughout the region for these small snakes, so it is probable that they occur within the park. These snakes are usually locally abundant and, therefore, can be found by flipping rocks and logs during spring and summer.
<i>Tantilla gracilis</i>	Flathead Snake	Probable: There are numerous records scattered throughout the region for these small snakes, so it is probable that they occur within the park. These snakes are usually locally abundant and, therefore, can be found by flipping rocks and logs during spring and summer.
<i>Cemophora coccinea</i>	Northern Scarlet Snake	Possible: The only record from northwest Arkansas is south of Fayetteville. This species is very difficult to find throughout its range in Arkansas and Missouri due to underground activity. This species is probably not on the park. The best time to search for this snake is on warm nights or after heavy rainfalls during the summer when the snake is active on the surface.
<i>Opheodrys aestivus</i>	Rough Green Snake	Probable: There are numerous records from Benton county for this snake. Suitable habitat for this species does occur within park boundaries. However, this species can be difficult to locate due to its secretive nature and arboreal tendencies.
<i>Masticophis flagellum</i>	Eastern Coachwhip	Probable: There are a few scattered records in northwest Arkansas. This species is probably found within the park.
<i>Elaphe guttata</i>	Great Plains Rat Snake	Probable: There are a few scattered records in northwest Arkansas. This species is probably found within the park.
<i>Agkistrodon piscivorus</i>	Western Cottonmouth	Probable: It was very surprising not to find this species on Quarrel Pond. Both Quarrel Pond and habitat along the river south of the highway seem suitable for this species. It is highly likely that this snake occurs within park boundaries.
<i>Crotalus horridus</i>	Timber Rattlesnake	Probable: The park is definitely within the range of this species, and suitable habitat for this species does exist within park boundaries. Due to expansion of the human population in the area (and therefore an increase in persecution), local populations of this species may be extirpated. However, we would suggest that the park continue searching for this species.

