



- PRESENTER'S NOTES

- This slide program is available as a free download from <http://HerpsOfArkansas.com>.

- It may be copied and distributed in its entirety, but not altered without express permission.

- It may be used for educational, nonprofit purposes only.

- Use a PDF viewer in *presentation mode* to view it in full screen.

Credits

Presentation created
by Kory G. Roberts

Photographs
by Kory G. Roberts
unless otherwise credited

Copyright © 2013-16, HerpsOfArkansas.com
webmaster@HerpsOfArkansas.com

- Special thanks to these additional photographers:
 - Matthew Connior
 - Jonathan W. Stanley
 - J T Williams

Definitions

- **Herpetology:** The study of amphibians and reptiles
- **Herps:** Slang for amphibians and reptiles; from the Greek *herpein*, meaning “to creep”

- Herping = looking for amphibians and reptiles; typically for the “thrill of the find” or for research, not to kill
- Herper = one who looks for amphibians and reptiles
- Herpetologist = professional who studies amphibians and reptiles
- Herptiles / Herpetofauna = alternatives of herps

- Herpetology as a field is based more on historical groupings than on biologically meaningful ones; amphibians and reptiles are hugely different groups of vertebrates.

AR Herp Species

Source	Amphibs	Reptiles	Total
Trauth 2004	52	65	117
AR Herp Atlas 2016	58	67	125

- General trend toward splitting, rather than lumping, taxa.
- Genetic analysis has revealed many “hidden” species that are not always congruent with traditional subspecies recognitions.

Level III Ecoregions



- Ozark Highlands
- Boston Mountains
- Arkansas Valley
- Ouachita Mountains
- South Central Plains
- Mississippi Alluvial Plain
- Crowley's Ridge

- Additional major geographic/genetic barriers:
 - Arkansas River
 - Mississippi River
 - Elevations (i.e. “sky islands”), particularly in the Ouachita Mountains



- 38 species in 5 families
 - 6 venomous species; 32 nonvenomous species
- Eastern Copperhead (*Agkistrodon contortrix*) hiding under log



- Pitvipers (Crotalidae)
 - American Moccasins (*Agkistrodon*)

- LEFT, TOP TO BOTTOM

1A) Eastern Copperhead (*Agkistrodon contortrix*) – Adult

1B) Eastern Copperhead (*Agkistrodon contortrix*) – Juvenile

---- Statewide; venomous; “upland moccasin”

- RIGHT, TOP TO BOTTOM

2A) Northern Cottonmouth (*Agkistrodon piscivorus*) – Juvenile

2B) Northern Cottonmouth (*Agkistrodon piscivorus*) – Adult

---- Statewide; venomous; semi-aquatic; “lowland moccasin”, “water moccasin”, or “trapjaw”



- Pitvipers (Crotalidae)
 - Rattlesnakes (Crotalus)

3) Western Diamond-backed Rattlesnake (*Crotalus atrox*)

---- Southern Boston Mountains and Ouachita Mountains; venomous; Arkansas's largest snake; “coon-tail rattler”

4) Timber Rattlesnake (*Crotalus horridus*)

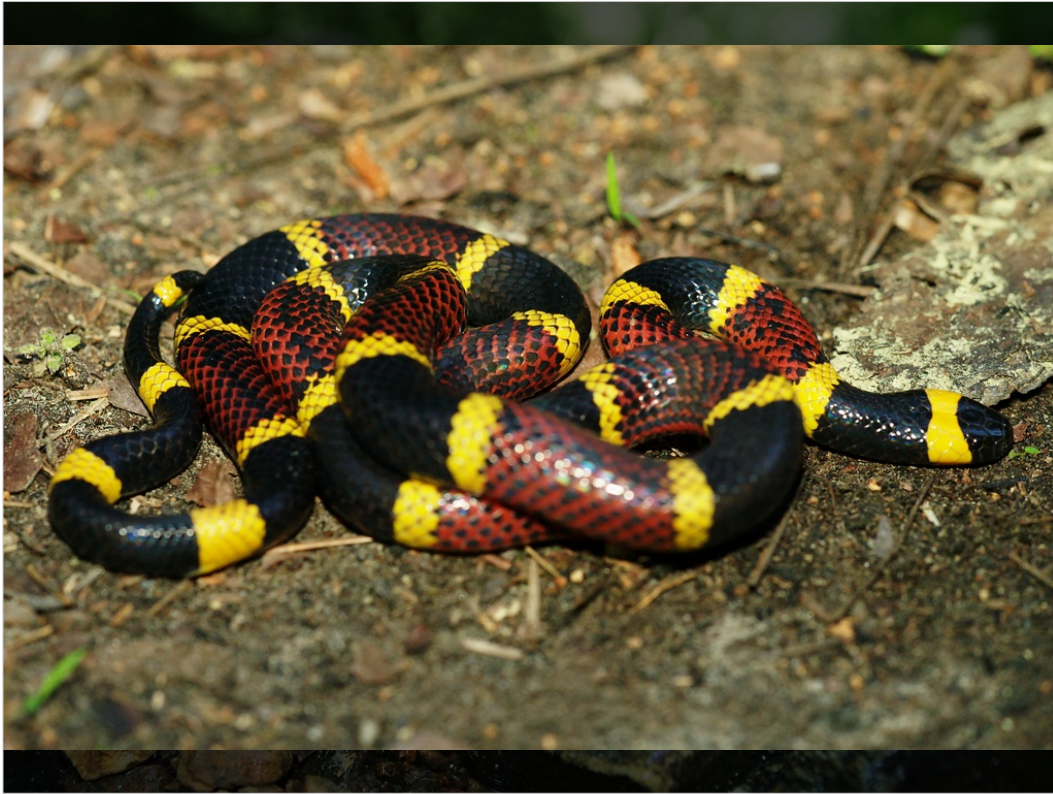
---- Statewide; venomous; “velvet-tail rattler”



- Pitvipers (Crotalidae)
 - Massasauga and Pygmy Rattlesnakes (Sistrurus)

5) Western Pygmy Rattlesnake (*Sistrurus miliarius streckeri*)

---- Statewide, except northeastern Arkansas; venomous; “ground rattler”



- Coralsnakes, Cobras, and Kraits (Elapidae)

6) Texas Coralsnake (*Micrurus tener tener*)

---- Sandy soil habitats of southwestern Arkansas;
venomous (neurotoxic); snake eater; uncommon



- Harmless Egg-Laying Snakes (Colubridae)
 - Scarletsnakes (Cemophora)

7) Northern Scarletsnake (*Cemophora coccinea copei*)

---- Statewide, though uncommon (especially in Ozarks and Ouachita Mountains); Coralsnake mimic; specialized diet of reptilian eggs



- Harmless Egg-Laying Snakes (Colubridae)
 - North American Racers, Coachwhips, and Whipsnakes (Coluber)

- LEFT, TOP TO BOTTOM

8A) North American Racer (*Coluber constrictor ssp.*) – Adult

8B) North American Racer (*Coluber constrictor ssp.*) – Juvenile

---- Statewide; fast and active

- RIGHT, TOP TO BOTTOM

9A) Eastern Coachwhip (*Coluber flagellum flagellum*) – Juvenile

9B) Eastern Coachwhip (*Coluber flagellum flagellum*) – Adult

---- Statewide, except for Mississippi Alluvial Plain; fast and active



- Harmless Egg-Laying Snakes (Colubridae)
 - Kingsnakes (*Lampropeltis*)

- LEFT, TOP TO BOTTOM

10) Western Milksnake (*Lampropeltis gentilis*)

---- Southwestern half of state; Coralsnake mimic

11) Speckled Kingsnake (*Lampropeltis holbrooki*)

---- Statewide; oft a snake eater; “salt and pepper snake”

- RIGHT, TOP TO BOTTOM

12) Prairie Kingsnake (*Lampropeltis calligaster calligaster*)

---- Statewide, except for Mississippi Alluvial Plain

13) Eastern Milksnake (*Lampropeltis triangulum*)

---- Northeastern half of state; Coralsnake mimic



- Harmless Egg-Laying Snakes (Colubridae)
 - Greensnakes (Opheodrys)

14) Northern Rough Greensnake (*Opheodrys aestivus aestivus*)

---- Statewide; semi-arboreal; insectivore



- Harmless Egg-Laying Snakes (Colubridae)
 - North American Ratsnakes (*Pantherophis*)

- LEFT, TOP TO BOTTOM
 - 15A) Great Plains Ratsnake (*Pantherophis emoryi*)
 - 15B) Great Plains Ratsnake (*Pantherophis emoryi*) – Juvenile
 - Ozarks, Arkansas Valley, and Ouachita Mountains; powerful constrictor

- RIGHT, TOP TO BOTTOM
 - 16A) Western Ratsnake (*Pantherophis obsoletus*) – Adult
 - 16B) Western Ratsnake (*Pantherophis obsoletus*) – Juvenile
 - Statewide; powerful constrictor; “black/western ratsnake”, “chicken snake”, etc.



- Harmless Egg-Laying Snakes (Colubridae)
 - North American Groundsnakes (Sonora)

- LEFT, TOP TO BOTTOM

17A) Variable Groundsnake (*Sonora semiannulata semiannulata*) – Plain, collared morph

17B) Variable Groundsnake (*Sonora semiannulata semiannulata*) – Striped, collared morph

17C) Variable Groundsnake (*Sonora semiannulata semiannulata*) – Mixed morph

- RIGHT, TOP TO BOTTOM

17D) Variable Groundsnake (*Sonora semiannulata semiannulata*) – Muted barred morph

17E) Variable Groundsnake (*Sonora semiannulata semiannulata*) – Orange barred morph

---- Few records from rocky glades of Arkansas/Missouri and Arkansas/Oklahoma borders; highly variable; centipede eater



- Harmless Egg-Laying Snakes (Colubridae)
 - Black-headed, Crowned, and Flat-headed Snakes (*Tantilla*)

18) Flat-headed Snake (*Tantilla gracilis*)

---- Statewide, except Mississippi Alluvial Plain; rocky glade habitat preferred; highly fossorial; Arkansas's smallest snake



- Rear-Fanged Snakes (Dipsadidae)
 - North American Wormsnakes (*Carphophis*)

19) Midwestern Wormsnake (*Carphophis amoenus helenae*)

---- Crowley's Ridge; highly fossorial

20) Western Wormsnake (*Carphophis vermiformis*)

---- Statewide, except for Mississippi Alluvial Plain (and rare from South Central Plains); highly fossorial



- Rear-Fanged Snakes (Dipsadidae)
 - Ring-necked Snakes (Diadophis)

21) Ring-necked Snake (*Diadophis punctatus ssp.*)
---- Statewide, except for Mississippi Alluvial Plain
(though it **is** found on Crowley's Ridge); fossorial



- Rear-Fanged Snakes (Dipsadidae)
 - Mudsnakes and Rainbow Snakes (Farancia)

22) Western Mudsnake (*Farancia abacura reinwardtii*)

---- Swamps of South Central Plains and Mississippi Alluvial Plain; specialized diet of amphiuma and siren; “hoop snake” or “stinging snake”



- Rear-Fanged Snakes (Dipsadidae)

- North American Hog-nosed Snakes (*Heterodon*)

- LEFT, TOP TO BOTTOM

23A) Eastern Hog-nosed Snake (*Heterodon platirhinos*) – Juvenile

23B) Eastern Hog-nosed Snake (*Heterodon platirhinos*) – Patterned morph

23C) Eastern Hog-nosed Snake (*Heterodon platirhinos*) – Plain morph

- RIGHT, TOP TO BOTTOM

23D) Eastern Hog-nosed Snake (*Heterodon platirhinos*) – Defensive display

23E) Eastern Hog-nosed Snake (*Heterodon platirhinos*) – Playing dead

23F) Eastern Hog-nosed Snake (*Heterodon platirhinos*) – “Differently toothed”

---- Statewide; highly variable; toad eater; exaggerated defensive tactics



- Harmless Live-Bearing Snakes (Natricidae)
 - Rough Earthsnakes (*Haldea*)
 - North American Earthsnakes (*Virginia*)

24) Rough Earthsnake (*Haldea striatula*)

---- Statewide, except Mississippi Alluvial Plain;
fossorial

25) Western Smooth Earthsnake (*Virginia valeriae elegans*)

---- Statewide, except Mississippi Alluvial Plain;
fossorial



- Harmless Live-Bearing Snakes (Natricidae)

- Swampsnakes (*Liodytes*)
- Crayfish Snakes (*Regina*)

- LEFT, TOP TO BOTTOM

26A) Gulf Swampsnake (*Liodytes rigida sinicola*)

---- South Central Plains; crayfish eater; aquatic; uncommon

27) Graham's Crayfish Snake (*Regina grahamii*)

---- Southern Arkansas and Mississippi Alluvial Plain with sparse records from northwestern Arkansas; aquatic; crayfish eater; uncommon

- RIGHT, TOP TO BOTTOM

26B) Gulf Swampsnake (*Liodytes rigida sinicola*) – Consuming crayfish

28) Queensnake (*Regina septemvittata*)

---- Boston Mountains (particularly the Mulberry River); aquatic; crayfish eater; uncommon



- Harmless Live-Bearing Snakes (Natricidae)
 - North American Watersnakes (Nerodia)

- LEFT, TOP TO BOTTOM

29) Mississippi Green Watersnake (*Nerodia cyclopion*)

---- South Central Plains and Mississippi Alluvial Plain; semi-aquatic; uncommon

30) Plain-bellied Watersnake (*Nerodia erythrogaster*)

---- Statewide; semi-aquatic; inset = juvenile

- RIGHT, TOP TO BOTTOM

31) Broad-banded Watersnake (*Nerodia fasciata confluens*)

---- South Central Plains and Mississippi Alluvial Plain; semi-aquatic

32) Northern Diamond-backed Watersnake (*Nerodia rhombifer rhombifer*)

---- Absent from central Ozarks and Ouachita Mountains; semi-aquatic

33) Midland Watersnake (*Nerodia sipedon pleuralis*)

---- Statewide, especially in faster waters; semi-aquatic



- Harmless Live-Bearing Snakes (Natricidae)
 - North American Brown Snakes (*Storeria*)

- LEFT, TOP TO BOTTOM

34A) Midland Brownsnake (*Storeria dekayi wrightorum*) – Variation

34B) Midland Brownsnake (*Storeria dekayi wrightorum*) – Variation

34C) Midland Brownsnake (*Storeria dekayi wrightorum*) – Variation

---- Statewide; fossorial

- RIGHT, TOP TO BOTTOM

35A) Red-bellied Snake (*Storeria occipitomaculata ssp.*) – Brown morph

35B) Red-bellied Snake (*Storeria occipitomaculata ssp.*) – Striped morph

35C) Red-bellied Snake (*Storeria occipitomaculata ssp.*) – Gray, “ring-necked” morph

---- Statewide; fossorial



- Harmless Live-Bearing Snakes (Natricidae)
 - North American Gartersnakes (*Thamnophis*)

36) Orange-striped Ribbonsnake (*Thamnophis proximus proximus*)

---- Statewide

37) Eastern Gartersnake (*Thamnophis sirtalis sirtalis*)

---- Statewide; “garden snake”



- Harmless Live-Bearing Snakes (Natricidae)
 - Lined Snake (*Tropidoclonion*)

38) Lined Snake (*Tropidoclonion lineatum*)
---- Single record from northwestern Arkansas

Snakes of Potential Occurrence

- Broad-banded Copperhead (*Agkistrodon laticinctus*)
- Texas Nightsnake (*Hypsiglena jani texana*)
- Plains Hog-nosed Snake (*Heterodon nasicus*)
- Slowinski's Cornsnake (*Patherophis slowinskii*)
- Bullsnaek (*Pituophis catenifer sayi*)

Additional Resources

HerpsOfArkansas.com

ArkansasFrogsAndToads.org

[Amphibians and Reptiles of Arkansas](#)
by Stanley E. Trauth, et al.

[Arkansas Snake Guide \(AG&F\)](#)
by Kelly J. Irwin



- QUIZ: 1) Find the herp. 2) Identify the species.
- ANSWER: 1) Coiled in leaf litter toward lower left corner. 2) Timber Rattlesnake (*Crotalus horridus*)



- THE END