
Boulder County Herps...



The Cold-Blooded Truth

A Basic Guide for BCPOS VNs



Up against Boulder County's more popular and charismatic critters like bunnies, butterflies, and birds (Oh my!)...





...I tell ya, herps don't get no respect!



Little wonder that they often feel compelled to hide under a rock, or in their shell!

But they should!

If not for amphibians venturing out onto the land and some evolving to become reptiles, mammals (that includes you and I, folks!) would never have evolved... so let's show a little humility and respect!

Herps have been around for nearly 400 million years compared to less than 1 million for Homo sapiens. Let that soak in.

Being ectothermic, herps can drastically reduce their metabolic and respiration requirements as their bodies get colder. This allows some to go for months without eating... don't you sometimes wish you could do that to drop some of those unwanted pounds!

Some frogs can even survive being frozen solid... don't try this at home!

So let's show some respect!

First, a few factoids...

- *Herp: a colloquial term derived from herptile, referring generally to reptiles and amphibians*
 - *While able to tolerate broad temperature extremes, optimally most function best between 65° and 85°.*
 - *In our area, all our herps must find shelter below the frost level during the colder months or they will freeze to death.*
 - *During brumation they will neither eat nor drink for months.*
 - *Generally, the higher the altitude, the fewer the variety and abundance of herps*
 - *Herps represent a critical component of the ecology, serving both as important control agents for insect and rodent pests, as well as being tasty prey items for many mammals, birds, and other herps*
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MEET OUR CAST



The Snakes

- *Prairie Rattlesnake*
- *Bull Snake*
- *Terrestrial or Wandering Gartersnake*
- *Plains Gartersnake*
- *Common or Red-sided Gartersnake*
- *Yellow-bellied Racer*
- *Smooth Greensnake*
- *Milk Snake*
- *Northern Watersnake*
- *Plains Hog-nosed Snake*
- *Plains Black-headed Snake*
- *Lined Snake*

The Lizards

- *Prairie or Fence Lizard*
- *Six-lined Racerunner*
- *Many-lined or Variable Skink*
- *Lesser Earless Lizard*
- *Hernandez's Short-horned Lizard*

The Turtles

- *Western Painted Turtle*
- *Red-eared Slider*
- *Snapping Turtle*
- *Spiny Soft-shelled Turtle*
- *Ornate Box Turtle*

The Frogs and Toads

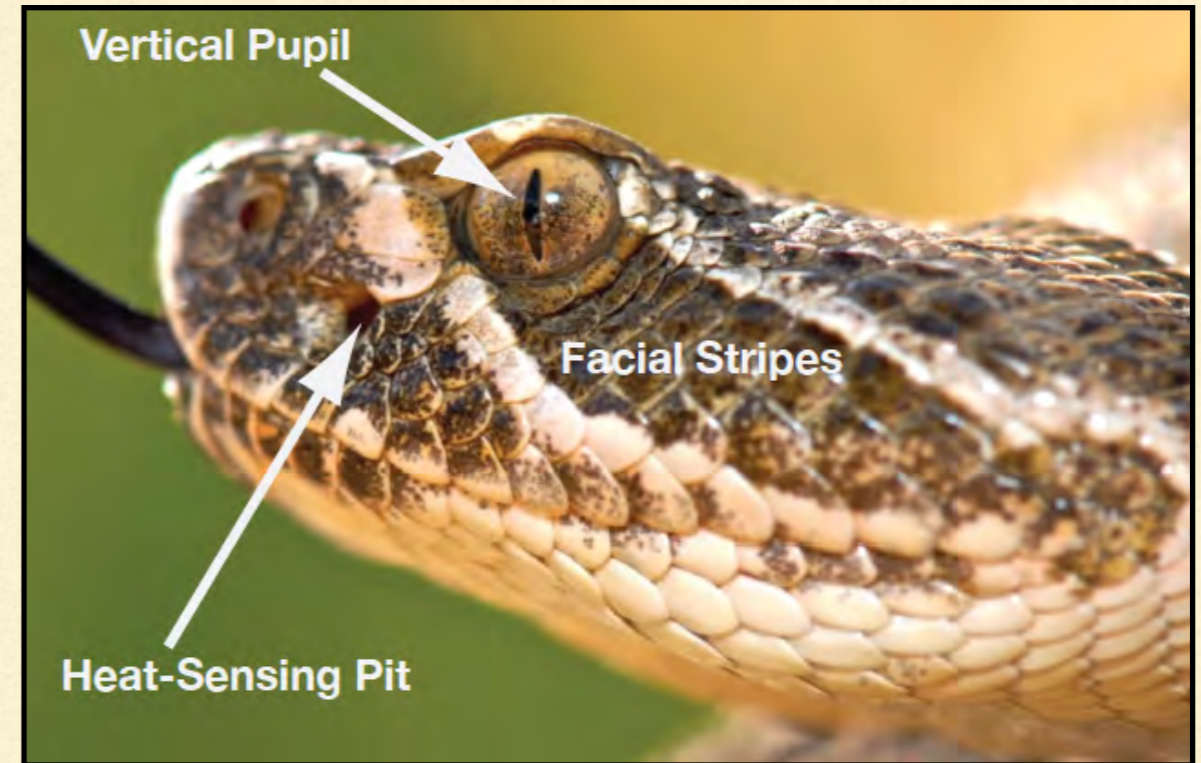
- *Boreal Chorus Frog*
- *Bullfrog*
- *Northern Leopard Frog*
- *Woodhouse's Toad*
- *Boreal or Western Toad*
- *Great Plains Toad*
- *Plains Spadefoot*

The Salamander

- *Barred Tiger Salamander*

Prairie Rattlesnake (*Crotalus viridis viridis*)

- **Venomous**
- **A rodent specialist (good to have around!)**
- **Heat-sensing pits allow it to detect the heat from a candle from 30 feet away!**
 - **Can pursue prey in total darkness**
- **Rarely gets over 3.5'**
 - **Can only strike about 1/2 its length**
- **Is NOT aggressive**
 - **Strikes only in defense**
 - **If encountered on the trail, be sure to exercise social distancing!**
- **>90% of people bitten are male and are messing with the snake! (About half of them have also been drinking!)**
- **If bitten:**
 - **First, don't panic, you're not likely to die (However, you may wish you could die!)**
 - **Snake bite kits do more harm than good**
 - **Best snake bite kit is your cell phone**
 - **Relax! If possible, wait for help to come to you**
 - **Remove rings, bracelets, watches, etc.**
 - **Do not use a tourniquet.**
 - **Keep bite site at about heart level**
 - **Again, try to remain as calm as possible**



Bull Snake/Gopher Snake (Pituophis catenifer)

- *Colorado's largest snake*
 - *Females can grow to 8 feet!*
- *A constrictor*
- *A rodent specialist (good to have around!)*
- *A good tree climber*
- *Though large it is completely harmless (unless you are small and furry or feathery!)*
- *Often mistaken for a rattlesnake*
 - *Puts on a convincing act (coils up, vibrates its tail, flattens its head, hisses loudly)*
 - *A rattlesnake holds its rattle upright, the bull snake tail lies flat on the ground*
 - *Bull snakes appear smooth, almost glossy, rattlesnakes are usually dull and rough with strongly keeled scales*
 - *Rattlesnakes have a broad head with a narrow neck; bull snakes have a smooth yellowish head that blends with the neck*
 - *The bull snake tail is yellowish with dark brown bands; the rattlesnake tail has lighter brown bands that get black at the end... and, more obviously, a rattle (usually)!*



Terrestrial or Wandering Gartersnake
(Thamnophis elegans)



- *Our most commonly seen snake*
- *Usually less than 3' in length*
- *Indistinct central stripe*
 - *somewhat brighter side stripes*
 - *spotty, checkerboard background*
- *Found in all habitats, especially by or near water*
- *Has been found as high as 11,000'!*
- *More common closer to the foothills*

Plains Gartersnake
(Thamnophis radix)



- *Distinctive yellow to orange central stripe*
 - *paler side stripes with spots alongside*
- *Usually less than 3' in length*
- *Adapts well to suburban life*
- *More common away from the foothills to the east*

Common or Red-sided Gartersnake
(Thamnophis sirtalis)



- ***Common elsewhere, but uncommon here***
- ***Species of special concern***
- ***Up to 4' in length***
- ***Bright yellow to orange central stripe***
 - ***somewhat paler side stripes***
 - ***red/black checkerboard along the flanks***
- ***Found by or near water***
- ***Locally abundant in a few locations***

Yellow-bellied Racer
(Coluber constrictor)



- ***Dull olive green above with a yellow throat***
 - ***creamy yellow underbelly***
 - ***very large eyes***
- ***Usually less than 3' in length, but can exceed 6'***
- ***Aptly named... they're fast!***
- ***A seize-and-swallow predator***
- ***Prefer open grasslands and shrublands***

Smooth Greensnake
(Opheodrys vernalis)



- ***Fairly common, but difficult to spot***
- ***Found from foothills to montane***
- ***Usually about 2 feet in length***
- ***Favors shrubby or grassy riparian areas***
- ***Camouflage expert!***

Milk Snake
(Lampropeltis triangulum)



- ***Arguably Colorado's most handsome snake***
- ***Secretive and nocturnal, so rarely seen***
- ***Usually less than 3' in length***
- ***Widespread habitat, but favors riparian valleys and grasslands***
- ***Coral snake mimic***

Northern Watersnake ***(Nerodia sipedon)***



- ***Our only watersnake***
- ***Found in streams, ponds, wetland areas up to about 5,500 feet***
- ***Grows to about 3.5 feet in length***
- ***Stout body with keeled scales***
- ***Often mistaken for a water moccasin, but we don't have them here***

Plains Hog-nose Snake ***(Heterodon nasicus)***



- ***Distinctive upturned snout and wide neck***
- ***Usually less than 2 feet in length***
- ***A toad specialist***
- ***Mildly venomous, but harmless to humans***
- ***Sometimes mistaken for a small rattlesnake***
- ***Found up to 6,000', but more common farther east of the foothills***
- ***Often plays dead with a dramatic flair***

Plains Black-headed Snake
(Tantilla nigriceps)



- ***Slender and smooth skinned***
- ***Diminutive 7-15” in length***
- ***nocturnal and secretive, so rarely seen***
- ***Found in damp areas along tributaries of the South Platte River at the base of the Front Range***
- ***Mildly toxic, but harmless to humans***

Lined Snake
(Tropidoclonion lineatum)



- ***Uncommon in our area***
- ***Resembles a small gartersnake***
- ***Light cream to yellow or orange center stripe***
- ***Keeled scales***
- ***Diminutive 12-21” in length***
- ***Found in wetlands, urban/suburban parks, riparian area, gardens, and yards***

Our Lizards



Prairie or Fence Lizard (*Sceloporus consobrinus*)

- *Our most commonly seen lizard*
- *3.5” to 7.5” in total length*
- *Found on sunny, rocky outcrops up to about 7,000’*
- *Males have vivid blue patches on their flanks and throat*
- *Females have pale blue on their flanks*
- *Also known as “bluebellies”*



Six-lined Racerunner (*Aspidoscelis sexlineata*)

- *Well named; they’re very fast!*
- *6” to 10.5” in total length*
- *Found in sparse, sandy areas and prairie grasslands up to about 7,500’*
- *Seem to relish hot, dry conditions*
- *Males have a green or blue throat and a pale blue belly; females have a white throat and a whitish belly*
- *Move with a nervous, jerky motion and often flick their tongues*



Many-lined or Variable Skink ***(Plestiodon multivirgatus)***

- *Moves like a snake with tiny legs*
- *Scales are smooth and shiny*
- *5" to 7.5" in total length, 2/3rds of which consisting of its tail!*
- *Shy and secretive; not often seen*
- *Found in prairie dog towns, vacant lots, areas of loose sandy soil, and dry woodlands up to about 5,500'*



Common Lesser Earless Lizard ***(Holbrookia maculata)***

- *No external ear openings*
- *4" to 5" total length*
- *Found on grasslands/shrublands with bare ground including prairie dog towns up to 6000 feet*



Hernandez's Short-horned Lizard
(Phrynosoma hernandesi hernandesi)

- ***Our only “horny toad”***
 - ***Broadly flattened body with short, stubby legs and tail***
 - ***Looks like a miniature dinosaur***
 - ***2.5” to 5.75” in total length***
 - ***Sagebrush and semi-desert scrublands to open coniferous forests in the mountains up to about 8,500 feet***
 - ***Becoming increasingly scarce due to habitat loss and feline predation***
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Our Turtles



Western Painted Turtle (*Chrysemys picta*)

- Colorado's official state reptile!
- 4" to 9.5" in length
- Found in lakes, ponds, and slow-moving waterways, especially those with silty bottoms, thick vegetation, and submerged logs
- Found up to about 6,000 feet
- Spend the winters burrowed into the mud, under water



Red-eared Slider (*Trachemys scripta elegans*)

- Non-native, but well established
- Prominent red or orange patch on each side of the head
- 5" to 11.5" in length
- Found in lakes, ponds, and slow-moving waterways, especially in urban/suburban parks and open spaces
- Found up to about 6,000 feet
- Spend the winters burrowed into the mud, under water



Snapping Turtle

(Chelydra serpentina)

- ***Our largest (and ugliest) turtle!***
– ***And ill-tempered to boot!***
- ***8” to 20” in total length***
- ***Looks absolutely prehistoric***
- ***Found in ponds and lakes, especially those with silty or muddy bottoms, thick vegetation, and submerged logs***
- ***Found up to about 5,500 feet***
- ***Spend the winters burrowed into the mud, under water***



Spiny Softshell Turtle

(Apalone spinifera)

- ***Flat and round like a pancake***
- ***Pliable, leathery shell***
- ***Small head, long neck, and snorkel-like nose***
- ***About 5” to 9” in length***
- ***Prefers waterways with soft, silty, and sandy bottoms***
- ***Generally found below 5,500 feet***
- ***Spend the winters burrowed into the mud, under water***



Ornate Box Turtle ***(Terrapene ornata)***

- ***Our only terrestrial turtle***
 - ***About 4" to 5.5" in length***
 - ***High domed shell with yellow striping***
 - ***Males have red eyes, females brownish yellow***
 - ***A denizen of the shortgrass and sandhill prairie***
 - ***Found up to about 5,500 feet, but now rare close to development along the Front Range***
 - ***Spends the winters in prairie dog or other burrows below frost line***
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Our Frogs and Toads



Boreal Chorus Frog (*Pseudacris maculata*)

- *Our most common (and noisy) frog*
- *3/4” to 1.5” in snout to vent length*
- *Found pretty much wherever it can find standing water*
- *Have been found as far up as 12,000 feet!*
- *Call sounds like someone running a fingernail along the teeth of a comb, rising in pitch*

Bullfrog

(*Lithobates catesbeianus*)

- *Non-native, but well established*
 - *actually detrimental to native species*
- *Large - 3.5” to 8” in snout to vent length!*
- *Voracious... eats everything it can fit in its mouth, even small mammals and birds!*
- *Prefers reservoirs, permanent ponds, ditches and slow-moving streams with cattails and lush vegetation*
- *Eardrums are large*
 - *In males the eardrum is larger than the eye*
- *Familiar deep, resonant call: “jug-o-rum”*





Northern Leopard Frog ***(Lithobates pipiens)***

- ***Species of special concern due to degradation of habitat and increased presence of bullfrogs***
- ***2” to 5” in snout to vent length***
- ***Found in wet meadows and the grassy edges of ponds, marshes, streams, and ditches***
- ***Found up to 11,000 feet***
- ***Call consists of a low drone followed by a couple of chuckle-like grunts***



Woodhouse's Toad ***(Anaxyrus woodhousii)***

- ***The toad most commonly seen in our area***
- ***2.5” to 5” in snout to vent length***
- ***Found in wetlands, ponds, temporary pools, irrigation ditches, and along streams***
- ***Found up to 7,000 feet***
- ***The male's call is a drawn out “waaah”***



Boreal or Western Toad ***(Anaxyrus boreas boreas)***

- ***Listed as endangered due to steep decline in numbers throughout its range***
- ***2.5" to 4" in snout to vent length***
- ***Found in mountain wetlands, wet meadows, subalpine lakes, beaver ponds from 8,500' to 12,000'***
- ***Unlike most toads, it does not vocalize during the breeding season***



Great Plains Toad ***(Anaxyrus cognatus)***

- ***A large green to brown toad with symmetrical blotchy patterns on either side of a light central stripe***
- ***2" to 4.5" in snout to vent length***
- ***Found mostly out on the plains, but can be found in the foothills up to about 6,000 feet***
- ***Call is a long repetitive series of closely-spaced chirps***



Plains Spadefoot ***(Spea bombifrons)***

- ***A small, squat little toad with vertical pupils***
- ***1.5” to 2.5” in snout to vent length***
- ***Mostly nocturnal, coming out in wet weather***
- ***Found in scrublands, shortgrass prairies, and sandhill areas up to about 6,000 feet***
- ***Named for a spade-like bump on the rear legs used in burrowing backwards into the soil***
- ***Call sounds like a drawn-out duck quack***

Our (only) Salamander



Barred Tiger Salamander (Ambystoma mavortium)

- *Colorado's official state amphibian!*
- *Large and plump, 6" to 13.5" in total length*
- *Nocturnal, secretive, and silent... usually only seen if actively sought*
- *Found in stock and retention ponds, small pools, drainage ditches, under moist logs, and other cool, moist hiding places*
- *Usually missing from ponds containing carnivorous fish, bullfrogs, or crayfish*

B'da, B'da, B'da...

