

Eastern Hog-nosed Snake (*Heterodon platirhinos*)

Family Colubridae (Dipsadinae)

Subspecies: None currently recognized

Updated 2025



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Description/Identification: The Eastern Hog-nosed Snake is a medium-sized, very thick and heavy-bodied snake averaging from about 19.6 to 35.4 inches in total adult length. There are about 21 to 25 scale rows in total, and the scales are distinctly keeled to semi-keeled. The anal, or ventral scale is divided, and the tail from the anal scute thereon is relatively short and thick. The head is moderately larger than the neck and rest of the body, and is broadly sloping and wedge shaped. An enlarged, cornified, slightly upturned rostral scale at the tips of the snout are what lend to their common name of “Hog-nosed” Snake. The tongue color is usually black or dark purplish, and are forked. On the inside of the mouth, Eastern Hog-nosed Snakes have one to two rows of tiny, recurved teeth on the maxillae and lower quadrate bones of their upper and lower jaws which are normally covered by a fleshy membrane, and also a greatly enlarged pair of rear maxillary teeth on the upper jaw. These teeth, however, are not large enough to cause anything more than a superficial laceration, however, and an Eastern Hog-nosed Snake needs to “chew” for several minutes in order to utilize these rear maxillary teeth effectively.

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Eastern Hog-nosed Snakes can be highly variable in colors and patterns among individuals, with a dorsum ground color ranging from a light or dark gray, tan or buff, olive, olive-brown or olive-gray, light to dark brown, blackish, to yellow or yellow-brown. Some individuals from coastal regions of the U.S. can even be a vivid red or orange in ground color. On the dorsum surface are about 20 to 30 larger, darker to somewhat darker, irregular saddle-shaped blotches, with a single row of smaller, black or darker brown lateral spots or blotches along the sides. Most individuals also have a pair of large, dark blotches or spots on the nape of the neck, and the head may be dark and mostly unpatterned, or in lighter colored specimens, can have one or two dark ocular bands running through the orbitals, the eyes, and along the quadrates (or jaws). The labials are usually a lighter colored tan, yellow, or whitish or cream colored from the rest of the head. About 6 to 11 alternating rings are on the tail, and the pupils are normally round, with a grayish, brownish, or yellowish-brown color of the eyes. Eastern Hog-nosed Snakes have 2 rows of subcaudals on the underside of the tail past the ventral opening, numbering in 15 to 32 rows.

Some adult Eastern Hog-nosed Snakes can be darker colored, having very little to no traces of patterning, and may be an olive, brown, or black with spots and patterning lacking or barely discernable. The ventral, or undersides are a uniformly unpatterned to mottled pale yellow, gray, or pinkish, with the anterior underside, and the subcaudals on the undersides of the tails being noticeably lighter colored than the rest of the undersurface. Hatchling and juvenile Eastern Hog-nosed Snakes have a much more boldly marked dorsal color and pattern on a lighter dusky gray to cream ground color, and there may be traces or suffusions on red or orange on the head and neck. The undersides of hatchlings are also black or much darker, except for underneath the head, neck, and tail, which are a lighter yellow or white. Even specimens which are destined to become uniformly patternless (or nearly so) as adults, and melanistic specimens, are heavily and boldly patterned as hatchlings. As hatchlings, Eastern Hog-nosed Snakes are between 5.0 and 9.0 inches in length.

Male and female Eastern Hog-nosed Snakes are similar in coloration and appearance, but are dimorphic in size. Females are usually larger and more heavy bodied than males, and have proportionately shorter tail lengths than males, and also lack the hemipenes which males possess. There are no subspecies of the Eastern Hog-nosed Snake currently recognized.



© WDNR. Missing: Extends into Northwestern Brown County, WI.

Range and Distribution: Eastern Hog-nosed Snakes range from southeastern Ontario, Canada, and southern New Hampshire in the New England United States (but are absent in the upper New England

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states), and throughout the eastern half of the U.S. south to Florida, west to eastern Texas, and eastern Oklahoma, Kansas, and Nebraska.

In Wisconsin, Eastern Hog-nosed Snakes can occur throughout most of the state, except for the non-forested south-western most counties (Green and Lafayette), eastern third of Wisconsin, and the forested north-central portions of the state. They are also absent from the Door County peninsula. They are most common and abundant in population in the sandier soiled counties of central, northwestern, and northeastern Wisconsin.



Individual of unknown phenotype, possibly Leucistic, from Northeastern Wisconsin. Christina Marie.

Habitat: Eastern Hog-nosed Snakes prefer, and are most common in deeper, sandy or loamy soiled habitats, and tend to be much less common or absent in heavier, “black-soil” or other wetter soiled environments. Prairies (including mesic, dry mesic, and dry sand prairies), oak savannahs, pine barrens, oak barrens, old fields, open, sandy soiled northern or southern forests or woodlands, and river floodplains and sandy agricultural areas can all be possible habitats for these snakes. They can also be found on steeper, dry bluffside hills and prairies in the unglaciated Driftless Region of western and southwestern Wisconsin, as well as along sandy, southern hardwood or bottomland forests along rivers.

Feeding and Diet: Eastern Hog-nosed Snakes are carnivorous, and a large portion of the diets of most individuals comprises of frogs and/or toads. These snakes are well-adapted for being able to eat toads, using their enlarged rear-teeth and Duvernoy’s glands to essentially “pop” toads when they inflate themselves as a defense, and are also well-adapted for enduring the toad’s skin secretions while eating them. Other small reptiles and amphibians may also be eaten by Eastern Hog-nosed Snakes, including salamanders, small lizards, and other smaller snakes. Other prey which is eaten with less frequency can include large insects, small nestling or fledgling birds, small fish, or small rodents or other small mammals. Reptile eggs, such as turtle and other snake eggs may also be eaten. Eastern Hog-nosed Snakes do not use constriction, instead they simply grasp their intended prey in their jaws and use their modified salivary and Duvernoy’s glands to paralyze and overpower their prey as they are ingested live.

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Natural History: Eastern Hog-nosed Snakes become active in the year from mid to late March or April, through to October or November. They are primarily diurnal snakes, where they spend much of their time basking or sunning, foraging and hunting for prey, or otherwise moving across open sandy areas. They are one of the few snakes which can dig their own holes and burrows, using their wedge shaped heads and upturned rostral scales to do so, and also to create their nesting cavities or burrows underground. Eastern Hog-nosed Snakes also maintain relatively larger home ranges than many other snake species in which they move around frequently within, and tend to utilize cover objects somewhat less frequently, except when they are deeply opaque, or in shed. Otherwise, Eastern Hog-nosed Snakes will spend much of their time underground when they are not active. While not rare, these factors can make them more difficult and/or inconsistent to find. Late in the fall, Eastern Hog-nosed Snakes overwinter in rock crevices, or in underground burrows made by other animals, or self-constructed burrows.



Ventral/Belly Views. © Jeffrey Phippen and Stock Photo.

Mating and breeding can take place both in the spring or in the fall. Eastern Hog-nosed Snakes are oviparous, laying anywhere from 8 to 40 white eggs in sandy sun exposed soil, mulch piles, and other piles of humid, rotting vegetation or debris, in which females will excavate their own nesting chambers or burrows in which to deposit their eggs. These nesting burrows or chambers made by Eastern Hog-nosed Snakes are distinctive in that their slide pushing tracks are often left behind in the sandy soil leading up to the burrow. Eggs are usually laid by late June through mid July, and hatch in about another 30 to 60 days, or by mid to late August or September. The newly hatched Eastern Hog-nosed Snakes, as with most snakes, fend for themselves on their own immediately upon hatching.

Eastern Hog-nosed Snakes have perhaps the most dramatic and elaborate defensive repertoires of any Wisconsin, or North American snake species for that matter. If they are unable to either remain still and cryptic in their patterning and coloration, or are unable to flee, or are cornered or encountered out in the open, these snakes will flatten their heads while spreading the ribs in their neck and anterior portion of their body to form a wide horizontal “hood” much like a cobra. They will inhale air into their lungs to inflate their bodies, and hiss very loudly and raspily, while coiling the ends of their tails into a “bullseye”, presumably a defensive tactic utilized by other snakes throughout the world to distract predators away

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from the head.

If they are approached closer, Eastern Hog-nosed Snakes may gape open their mouths, and attempt to mock-strike, although these behaviors are most often done with their mouths closed or with their heads, and these snakes are excellent at the art of bluffing. If their threat continues to persist, or if they are physically picked up and handled, or continue to otherwise be physically harassed, Eastern Hog-nosed Snakes will then begin to turn themselves over and begin writhing around and convulsing while dragging their wide open mouths and tongues in the sand or dirt, and smearing musk, urates, and feces all over themselves, or sometimes regurgitating any recently eaten meals for several minutes before finally laying still upside down, where they will “feign death”. Their foul musk and smell of the feces covered upon themselves as well as this overall death feigning behavior must have been successful predator deterrence behaviors over the evolution of these snakes for them to continue these defensive behaviors.

If they are flipped or righted back upside, they will immediately invert themselves again; however, if an observer sits and waits quietly nearby for several minutes, or when the potential threat otherwise gives up and leaves, Eastern Hog-nosed Snakes will then “come back to life” by slowly peering up their heads to assess their surroundings. If the threat seems to have gone, these snakes will then flip themselves right-side up again and begin to crawl away. If they are harassed again, they will immediately resume playing dead again. The sequence of these defensive behaviors can all vary in length, degree, and duration depending on each individual snake, and some might immediately skip to playing dead upon being encountered, while others may continue their bluffing behaviors and refuse, or be more harder pressed to play dead. Others still might not perform these displays at all.

This has lead to these snakes being referred to as “blow snakes”, “blow adders”, “blow vipers”, “spreadheads”, “spreading adder”, “spreading viper”, or many other combinations of these names, often with the name “viper” or “adder” in them. These snakes, however, are entirely harmless to humans, and despite their intimidating defensive behaviors, rarely actually bite in defense, unless one smells of their preferred food of frogs or toads, or deliberately forces a finger down into their mouths. For comparison, Bullsnares/Gophersnakes (*Pituophis catenifer sayi*) may be confused with Eastern Hog-nosed Snakes, but are proportionately longer and less heavy bodied, and have less distinctly upturned rostral scales. Eastern Foxsnakes (*Pantherophis vulpinus*) lack an enlarged, upturned rostral scale, and have more rounded, uniformly alternating blotches. Eastern Hog-nosed Snakes are also commonly confused for Eastern Massasauga rattlesnakes (*Sistrurus catenatus*) or Timber Rattlesnakes (*Crotalus horridus*), but do not have rattles on their tails, and are not rattlesnakes.

The main natural predators of Eastern Hog-nosed Snakes can include a number of large birds such as birds of prey (hawks, owls, eagles), turkeys, some other snake species, and a number of carnivorous or predatory mammals including weasels, skunks, opossums, raccoons, foxes, coyotes, mink, domestic cats, domestic dogs, and bobcats.

Conservation Status: In Wisconsin, Eastern Hog-nosed Snakes are listed as “Common”. They are still

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regulated and protected along with all other of Wisconsin's herptiles, however under N.R. 16. Eastern Hog-nosed Snakes are currently not protected or regulated federally. Eastern Hog-nosed Snakes are currently IUCN Red-List Least Concern (LC).