Family Colubridae (Colubrinae)

Subspecies: None currently recognized

Updated 2025



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© Mike Day



Juvenile, © Myles Masterson



Juvenile, © Rob Christian

Description/Identification: The Eastern Milksnake is a medium sized, somewhat slender bodied snake typically ranging from about 23.6 to 35.4 inches in total length as adults. The scales are smooth and unkeeled, with approximately 19 to 23 scale rows in total. The anal or ventral plate is single and undivided, and the head is indistinct from the neck, somewhat small in proportion to, and only slightly wider than the body. The irises of the eyes are often red or orange, and the pupils are normally round. Eastern Milksnakes have 2 rows of subcaudals on the underside of the tail past the ventral opening, with about 10 to 39 rows. On the inside of the mouth, Eastern Milksnakes 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. These teeth, however, are not large enough to cause anything more than a superficial laceration, however.

On the back of the head, neck, or nape is usually a pale yellow, whitish, or cream colored "Y" or "V" shaped marking, although this can be absent in many individuals, instead having simply a lighter band or blotch where the dorsum blotches begin. The labials or upper jaws, chins, and throats are white with black or darker barring, and a dark blackish ocular band running from across the forehead, through the eyes, and to the posterior quadrate are usually present, and are more boldly and vividly marked in hatchling or juvenile Milksnakes. The tongue is forked, and usually a reddish or pinkish with blacktipping. These snakes may sometimes be referred locally to as "checkered" or "spotted" adders, or other names.

In adult Eastern Milksnakes, the dorsum background color usually ranges from a silvery, gray, or light brown or tan, and there are 3 rows or larger, round to ovular or saddle shaped dorsal and alternating

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lateral blotches along the sides ranging in color from dark gray, brown, to reddish-brown, and usually border thickly in black. Hatchling and juvenile Eastern Milksnakes are similar in pattern to the adults, but their dorsal blotches are usually a much brighter brick-red bordered in black, and the ground color is oftentimes a brighter white or gray. As they age, Eastern Milksnakes will usually lose their bright red dorsal blotches which they had as juveniles, usually becoming more of a brown or reddish brown as adults.

The undersides or ventral surfaces of Eastern Milksnakes, both adults and juveniles, are usually a white to cream, or pinkish in color with large, darker, irregular rectangular or "checkerboard" patterning. Eastern Milksnakes may be confused with a number of other non-venomous snake species. Northern/Common Watersnakes (*Nerodia sipedon*), are proportionately heavier bodied, and have much more strongly keeled scales, and divided anal plates. Eastern Foxsnakes (*Pantherophis vulpinus*) and juvenile Central Ratsnakes (*Pantherophis alleghaniensis*) have more weakly keeled scales (as opposed to smooth), and divided anal plates. Juvenile Racers (*Coluber constrictor*) can also strongly resemble young Milksnakes, but the head and eyes are proportionally larger, are more slender bodied overall, and the patterning grades into a more solid gray or brown in juvenile racers towards the tail as opposed to being uniformly patterned. Adult Bullsnakes/Gophersnakes (*Pituophis catenifer sayi*), are usually much larger than adult Milksnakes, have more strongly keeled scales, enlarged rostral plate, and much mor irregular patterning.

Male and female Eastern Milksnakes are very similar in appearance, aside from very slight dimorphic size and length differences. Examination for the presence of hemipenes in the males are usually the most reliable method of distinguishing the sexes. They are also commonly confused with Cornsnakes (*Pantherophis guttatus*); however, Cornsnakes are not native to Wisconsin. Corn snakes, being a species of ratsnake, have weakly keeled scales, whereas Milksnakes have smooth scales. Corn snakes also have a characteristic spear or arrowpoint marking on their heads and through their eyes, while Milksnakes do not. Lastly, corn snakes have a more distinct head from the neck than do Milksnakes. Hatchling Eastern Milksnakes usually range from about 5.0 to 10.0 inches in total length. No subspecies of Eastern Milksnakes are currently recognized.

Eastern Milksnakes 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.



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Range and Distribution: Eastern Milksnakes range from across southern Canada, from southern Ontario, Nova Scotia, Quebec, and New Brunswick, through the New England United States, and southwest through the eastern U.S. to northeastern Louisiana, and west to extreme eastern Oklahoma, Kansas, south-central Minnesota, and Nebraska. In Wisconsin, Eastern Milksnakes can be locally common in about the southern two-thirds of the state, but become more uncommon and localized in central and north-central Wisconsin, and are absent from the northern third of the state.



Aberrantly-patterned individual from Wisconsin. *Philip Fritsch.

Habitat: Eastern Milksnakes can occur in a wide variety of semi-moist forest edge habitats. They may be found amongst or along old woodlots, southern or northern dry upland hardwood forests and woodlands, oak savannahs, grasslands, prairies, old fields, agricultural farmlands, or vacant lots, pastures, and along marshes or lowland/bottomland forests, or adjacent to small streams. Rocky areas, such as rocky road cuts, forested to open blufflands and bluff prairies, hillsides, railroad grades, and along other rock walls with ample flat rocks, and vacant, abandoned farm or homesteads with ample scattered cover and debris are also favorite haunts for Milksnakes.

Feeding and Diet: Eastern Milksnakes are carnivorous, feeding on a variety of newborn to small rodents or other small mammals. They may also eat frogs, salamanders, or other amphibians, other smaller snakes, small birds or bird eggs, or large insects or other invertebrates. Hatchlings may eat almost exclusively insects or other small snakes. These snakes are constrictors, using their teeth and jaws to grab their prey, and then their coils to constrict them, although smaller prey may simply be ingested live.

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Ventral/Belly Views. © Andy Weber and Middlebury.edu (Maureen Rice).

Natural History: Eastern Milksnakes are secretive snakes, usually becoming active in the year by mid-to late April, or May. They are most easily found in the spring during May and early June, and in the fall, from September or October, when they are more surface active, and when they are still near their hibernaculas, before dispersing for the summer. Eastern Milksnakes are seldom seen or found basking out in the open, as are many other snakes, but can occasionally be seen basking. They are more frequently found, when not active, underneath boards, sheets of tin, large flat rocks, logs, or other debris and cover, and also underground in burrows. During the warmer and hotter summer months, Milksnakes become much more secretive during the day, becoming nocturnal to crepuscular, particularly before or after heavy rains or storms, where they may be found crossing roads at night.

Milksnakes overwinter by around October or November deeper within rock piles or rocky outcroppings and rock crevices, mammal burrows underground, or often in older stone foundations of homes and other buildings, where they often may turn up in basements or other areas of houses during the unseasonable times. They may overwinter individually, with other Milksnakes, or with other snake species in the area. Milksnakes most likely mate and reproduce in the spring during April and May shortly thereafter emerging. Milksnakes are oviparous, laying anywhere from 6 to 18 white, cylindrical eggs in humid, semi-moist secluded spots underneath large rocks, under or within decaying logs or stumps, or other rotting vegetative piles or debris. They will then incubate, and hatch by around mid to late August, or September, where their bright red, black, and white coloration can lead to them being mistaken for coral snakes, even though coral snakes do not occur in, or anywhere near Wisconsin.

The name "milk" snake probably derives from the old and erroneous Old World English belief that these snakes would enter, or frequent around barns and pastures in order to drink or suck the milk from the teats of cows and livestock. This myth, however, is entirely untrue, as no species of snakes drink milk, or from cows, nonetheless, and no cow or cattle would tolerate the sharp teeth of these snakes on their udders. The true reason why Milksnakes are commonly found within and around the proximity of older

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homesteads and farmsteads has to do with these places not only providing ample shelter and cover for the snakes, but also attracts many mice, rats, and other rodents, which are also a food source.

As a result, Milksnakes are harmless and beneficial snakes for the environment in that they serve to act as natural rodent and other pest control, free of charge. When threatened, however, Milksnakes will attempt to flee for cover, or will coil into a defensive posture and may try to strike or bite. They will also rattle their tails against dry leaves, grass, or other objects, which creates a loud buzzing or whirring sound, which can cause them to also be mistaken for a rattlesnake. Milksnakes will also defecate, or secrete a foul, bad smelling musk when they are handled. Some Milksnakes may behave more passively, by either hiding their heads in their coils, or sometimes "playing dead". Milksnakes may also do a peculiar head-twitching behavior when they are disturbed. Some Milksnakes will become more docile after a few minutes of handling, while others might continue to bite or "chew" unpredictably.

The main natural predators of Eastern Milksnakes 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 Milksnakes are listed as "Common". They are still regulated and protected along with all other of Wisconsin's herptiles, however under N.R. 16. Eastern Milksnakes are currently not protected or regulated federally. Eastern Milksnakes are currently IUCN Red-List Least Concern (LC).