

Lined Snake (*Tropidoclonion lineatum*)

Family Colubridae (Natricinae)

Subspecies: None currently recognized

Updated 2025



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Description/Identification: The Lined Snake is small, heavy or thick-bodied species of fossorial snake with a total of about 19 scale rows in total, with the dorsal scales being strongly keeled, and the anal or ventral plate scale being single and undivided. The head is proportionately small, blunt, somewhat flattened and narrow, and indistinct to only very slightly wider than the thicker neck and rest of the body, and with there being only 5 to 6 upper labial scales present. The eyes are also fairly small, and the tail at the anal or ventral scute is short. The total adult size of Lined Snakes usually ranges between 8.7 and 15.0 inches in length, but with a maximum recorded length of about 21.0 inches. The tongue is forked and a black to dark reddish in color, and the pupils are normally round or ovular, with reddish-brown irises of the eyes.

Lined Snakes can range in dorsum ground color from gray, olive or olive-gray, brown, to brownish or grayish-tan, with three light colored, longitudinal stripes running down the mid-dorsum and lateral stripes covering scale rows two and three. These stripes may range from white or cream, pale yellow, or lighter gray, or pale greenish although the dorsum stripe can also sometimes be a brighter orange to orangish-yellow. In between lateral stripes above the lateral stripe and below the dorsum stripe, may be an additional one or two rows of smaller, darker background spots, blotches or flecks. The head is mostly unpatterned and uniform colored with the rest of the body, except for a white or pale yellow spot or blotch located at the base of the head behind each eye. Lined Snakes also have 2 rows of subcaudals on the underside of the tail past the ventral opening, ranging from about 33 to 40 rows.

The chin, upper labials, throat, and ventral surface range from a white, cream, or pale yellow or yellowish-green color with two distinct rows of dark gray or black half-moon shaped ventral blotches running down the center of the ventral or undersurface. Newborn neonate Lined Snakes appear similar to the adults, except for being lighter or darker in color. Male and female Lined Snakes are similar in appearance, except for females being somewhat larger and thicker-bodied, and having shorter tails proportionately than do males. On the inside of the mouth, Lined 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. These teeth, however, are too small to easily or effectively puncture human skin.

At first glance, a Lined Snake may appear similar or be mistaken for a small, drably colored Common

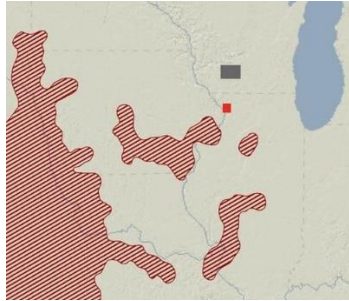
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Gartersnake (*Thamnophis sirtalis*). Common Gartersnakes, however, have more distinctive, well-defined heads and necks, and lack the two rows of dark, half-moon shaped ventral blotches which Lined Snakes have. Other small fossorial species such as Red-bellied Snakes (*Storeria occipitomaculata*) and DeKay's Brownsnakes (*Storeria dekayi*) also lack these ventral markings. There are currently no subspecies of the Lined Snake recognized.



© Corey Raimond. Gray Square is Wisconsin-Adapted Range.

Range and Distribution: Lined Snakes range through the central Great Plains states in the United States extending from southeastern South Dakota and extreme southwestern Minnesota, southwest, through to Texas. Several other disjunct populations also occur in Wisconsin, New Mexico, Colorado, and in Illinois.

In Wisconsin, the Lined Snake forms a disjunct population from the main portion of its range further west and southwest in the U.S., presently encompassing only two counties (Dane and Iowa) in southwestern Wisconsin. These secretive, fossorial snakes may occur in additional counties in Wisconsin with similar habitat, but have yet to be documented.



Ventral/Belly View. © Herps of Arkansas.

Habitat: In Wisconsin, and elsewhere in the range, Lined Snakes are most commonly associated with open grasslands, rocky pastures or old fields, or open woodland habitats, or rocky glades with soft, somewhat moist soils. They are secretive, fossorial snakes spending much of their time hidden underneath flat rocks or logs, boards, or other debris, or underground. In other parts of their range, Lined Snakes are also common in gardens and in vacant lots, or along rocky roadcuts where they may be found underneath trash or other debris, or underneath rocks.

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Feeding and Diet: Lined Snakes are insectivorous, and feed almost exclusively on earthworms or other soft-bodied invertebrates such as some soft-bodied insects and slugs. These small snakes use an enlarged pair of teeth in the rear of their upper jaws to swallow and overpower their small prey, without the use of constriction, and are limited to such small prey due to their very small heads.

Natural History: Lined Snakes are a small, secretive, fossorial species of snake, spending much of their time underneath rocks, logs, boards, or underground in areas with moist, humid soil. An abundant backyard or garden species of snake over much of its range across the Great Plains states, Lined Snakes form a unique, disjunct population in Wisconsin consisting of presently only two counties (Dane and Iowa) located in the southwestern grasslands of southwestern Wisconsin. Lined Snakes are unique in that they are the sole species members of their genus, but are closely related to garter, ribbon, and other natricine snakes. These small snakes are also most active at night, or are crepuscular.

Lined Snakes are the most recently discovered species of snake, and reptile for that matter, in Wisconsin, having only been documented in 2016, and as such, relatively little is still known about the Lined Snakes' biology and natural history specific to Wisconsin. However, from what has been observed, Lined Snakes become active in the year by mid or late April, and remain active throughout much of the year until October or November, where they will then overwinter, most likely deeper underground in burrows underneath rocks or logs, or in rock crevices.

Mating and reproduction most likely take place in the spring, as with other Wisconsin snakes, although may also occur in the fall. Lined Snakes are ovo-viviparous, giving birth from usually 2 to 12 live young by the end of July, August, or early September. The neonates, as with other species of snakes, receive no parental care after being born, and immediately fend for themselves. Gravid female Lined Snakes may give birth the following year. As with all snakes, Lined Snakes are a unique and important, as well as beneficial component to their prairie and grassland ecosystems.

Lined Snakes are small, harmless, inoffensive snakes which will first attempt to bolt or flee towards cover when they are uncovered. These small snakes are unlikely to bite when handled, but even if one tried to, their heads and mouths are much too small to even break the skin. Lined Snakes may bluff, or flatten their bodies, or excrete a foul smelling musk as a defense, however.

Small snake species such as Lined Snakes can be predated upon by many different species of birds (such as crows, turkeys, cranes, kestrels, hawks, and other small birds of prey), other larger snakes, and a number of different carnivorous or predatory mammals including domestic cats, foxes, skunks, shrews, raccoons, moles, and opossums.

Lined Snake populations in Wisconsin are most threatened with development, and habitat degradation.

Conservation Status: In Wisconsin, Lined Snakes are listed as a "Special Concern" species. These small,

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unique snakes are regulated and protected along with all other of Wisconsin's herptiles under N.R. 16.

Lined Snakes are currently not protected or regulated federally. Lined Snakes are currently IUCN Red-List Least Concern (LC).