

Common Gartersnake (*Thamnophis sirtalis*)

Family Colubridae (Natricinae)

Subspecies: Eastern Gartersnake (*Thamnophis sirtalis sirtalis*); Chicago Gartersnake (*Thamnophis sirtalis semifasciatus*)

Updated 2025



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Chicago Gartersnake (*T. s. semifasciatus*), © Matt Weldon

Description/Identification: The Common Gartersnake is a small to medium-sized, moderately built and bodied species of garter snake ranging in total length from about 17.3 to 25.9 inches, but with a maximum recorded length of up to 49.0 inches, but much more rarely. The head is medium-to-large sized, and distinct from the neck and body. There are a total of about 19 scale rows on the body, and the scales and scalation are heavily keeled. The ventral, or anal plate is single or undivided, and there are seven supralabial scales, and ten infralabials. The pupils are normally round, and the irises of the eyes are a dark reddish or reddish-brown, to golden-yellow in color. Common Gartersnakes have 2 rows of subcaudals on the underside of the tail past the ventral opening, and which number about 26 to 4 rows. On the inside of the mouth, Common Gartersnakes 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 an enlarged pair of rear-maxillary teeth on the upper jaw. These teeth, however, are too small to easily or effectively puncture human skin.

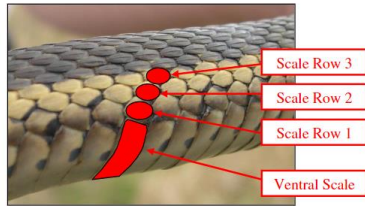
The top dorsal coloration of the head is an unpatterned dark grayish, gray-brown, or olive-brown, with the labials and upper jawlines being unmarked pale yellowish, or sometimes bluish or greenish-yellow with 3 to 4 dark suture lines only on the hind quadrate. The ground dorsal color can be highly variable, ranging from black, brown, to dark olive-green. Three (3) lighter longitudinal stripes run down the body, with the mid-dorsal stripe beginning on the nape of the neck, being 2 to 3 scale rows wide, ranging in color from white, cream, greenish-yellow, orange, or yellow. The median dorsal stripe is often a lighter color than the lateral stripes, which cover scale rows 2 and 3.

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Common Gartersnake (Thamnophis sirtalis) Lateral Stripes, © WDNR Gartersnake Identification Guide

A row of alternating, and opposing dark spots may often be present on both sides of the lateral stripes and beneath the median stripe. In some specimens, the dorsal median stripe may be absent or inconspicuous. The ventral, or undersides are a solid, unmarked whitish or cream, yellowish, or greenish-yellow, with 2 rows of small dark pencil-point spots lining the lateral edges of the ventral scutes. Neonate and juvenile Common Gartersnakes are similar in appearance to the adults, but are more brightly colored and patterned. As with other Gartersnakes, the tongue is forked, and a pinkish to red, and black-tipped. After death, the pigmentation begins to break down in garter snakes, giving them a much more bluish or bluish-gray stripes or appearances than during actual life.

Some individuals in the southwestern Wisconsin grassland region can have much lighter, sandier-brown or fawn brown ground coloration, while other populations in northeastern Wisconsin, notably in Door County, may be suffused with bright red or orange coloration, particularly on the labials, sides, and undersides of the neck. Some individuals can also have red or orangish flecks in-between the dorsal scales. There are two subspecies of Common Gartersnakes in Wisconsin, the Eastern Gartersnake (*Thamnophis sirtalis sirtalis*), which occurs throughout the state, and the Chicago Gartersnake (*Thamnophis sirtalis semifasciatus*), which is characterized by their dark, fused vertical bars interrupting the lateral stripes on the anterior third of the body. This Chicago form occurs in south-central and south-eastern Wisconsin, although some populations in northeastern Wisconsin in Winnebago, Outagamie, and Brown Counties also tend towards characteristics of the “Chicago” Gartersnakes.

Melanistic populations of Eastern Gartersnakes caused by a simple recessive genetic trait are known from some areas of their U.S. range, such as along the Lake Erie coastline and Lake Erie islands of Ohio in the U.S., and Ontario, Canada in which snakes are entirely black, or nearly black in appearance, except for white, brown, or reddish-brown labials, chins, and throats, or only a slight trace of their striping. No such melanistic specimens have been documented in Wisconsin, but are also worth mentioning. Leucistic specimens have been collected from northeastern Wisconsin, however.

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Range and Distribution: Very broadly and generally, there are many different subspecies of Common Gartersnakes which occur throughout much of southern Canada, Northwestern and the West-Coast United States, all of the way east through Ontario, Quebec, New Brunswick, and Nova Scotia. The Eastern Gartersnake occurs throughout the eastern half of the U.S., intergrading with the Red-sided Gartersnake (*Thamnophis sirtalis parietalis*) in Minnesota, Iowa, and Missouri, and which reaches as far north in Canada as the Northwest Territories. Other subspecies further west or east range well north into British Columbia (B.C.) or northern Quebec, depending on the subspecies and the range. The Chicago Gartersnake otherwise ranges within the range of the eastern garter snake, in northwestern Illinois and northwestern Indiana.

Common Gartersnakes are one of the most widespread, familiar, and ubiquitous snake species, both throughout the U.S. and in Wisconsin, where they occur throughout the state, including even on the Apostle Islands.

Eastern Garter Snake
Thamnophis sirtalis sirtalis
actual length is approx. 17 inches



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Ventral/Belly View (Same for both Subspecies). (cs)

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Habitat: Common Gartersnakes are habitat generalists, and may be found in nearly any type of terrestrial or semi-aquatic plant community or habitat. They most favor semi-moist or semi-wet, grassy habitats along forest, old woodlot, and woodland edges, northern and southern hardwood lowlands, mixed forests, banks of rivers, ponds, lakes, or streams, sedge meadows, old fields, roadside ditches,

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along the margins of marshes, bogs, oak savannahs, river floodplain sloughs or backwaters, wet mesic to other types of prairies, or grasslands. Common Gartersnakes are also very adaptable to urbanization, and can also often be found in backyards, city parks, gardens, and vacant lots even in urban and suburban areas. Warm, sunny areas, especially in the spring and fall, are especially favored in all of these types of habitats.

Feeding and Diet: Common Gartersnakes are carnivorous, and are also dietary generalists, eating a wide variety of smaller ectothermic and endothermic prey. A wide variety of frogs, toads, salamanders, tadpoles, and other amphibians and their larvae are commonly eaten, as well as small fish, insects and insect larvae, earthworms and other worms, slugs or snails, or other small soft-bodied prey which may make up 90% or more of their diet. Some individuals or populations may eat smaller birds, bird's eggs, small lizards, or small mammals such as newborn rodents as well. As with other garter snakes, prey is not constricted; instead, Common Gartersnakes usually simply overpower their intended prey with their jaws prior to ingesting them live.

Natural History: Common Gartersnakes are one of the most ubiquitous and familiar snake species in Wisconsin, where they earn their name "garter" snake due to their striped patterning said to resemble the old-fashioned "garters" which used to be worn by men of prior decades. They are also often informally called "Garden", "Gardner", or "Grass" snakes. Common Gartersnakes are one of the earliest emerging snakes in the year, often emerging in late April or May during warm days when there is still snow on the ground. They overwinter underground in mammal burrows, old wells or foundations, rock crevices and cavities, ant mounds, or rock piles. They remain active around these hibernaculums for several weeks, where they mate, either in the spring or the fall (usually in May or October). Male and female Common Gartersnakes are very sexually dimorphic in size, with the females usually being much larger and heavier-bodied than males, and with proportionately shorter tails than males.

Shortly after emerging from overwintering, male Common Gartersnakes will track and use the scent pheromones given off by females in order to locate and identify them. In many instances, large "breeding" balls of garter snakes consisting of up to a dozen or more males all attempting to mate with and court a single, larger female may be seen. Some males have evolved a strategy of being able to mimic the pheromones given by females in order to distract other males from mating with the actual female.

After mating, Common Gartersnakes disperse throughout the area for the summer, and primarily bask and forage for food during this time until October or November when they travel back to their overwintering hibernacula. They may overwinter with dozens, or even hundreds of other garter snakes, as well as other snake species in the area. In some areas of Canada, such as at the Narcisse Snake Dens in Manitoba, likely tens of thousands of garter snakes may be seen overwintering in a relatively dry, barren landscape, although garter snake dens of this size and magnitude probably are not known in Wisconsin.

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Common Gartersnakes, as with other garter snakes, are ovo-viviparous, giving birth to live young numbering anywhere from about 6 to 73 young, or more, which are not given parental care after being born, although the young may remain near the mother and rely on her chemical scent cues for several hours or even days afterward. Common garter snakes are primarily diurnal, or active during the day, although they are more likely to become nocturnal to crepuscular during the warmer summer months, unlike other species of Wisconsin's garter snakes. Common garter snakes are also semi-aquatic, and can swim and dive into the water well, in order to hunt for food, or to escape predation. Garter snakes will also climb well, and can often be found in hedgerows, bushes, or other low vegetation.

Common Gartersnakes have a number of defenses against potential predation; that is if their striped patterns are either unable to render them cryptic among the grass or leaves, or able to break up the outline of the snake as it is rapidly moving through the grass. When cornered or picked up, common garter snakes may readily flatten their heads and bodies, assume a coiled defensive posture, and try to bite or thrash about. Their second line of defense is to expel feces, urates, and a very foul and noxious smelling musk, which smells worse than most other Wisconsin snakes. Some may behave more passively by hiding their heads, and raising their tails while smearing musk and feces over themselves to distract predators away from their head. As with all snakes, Common garter snakes are harmless and beneficial for the environment, consuming and controlling a number of insect and other invertebrate pests which would be undesirable for homeowners and gardeners.

Common Gartersnakes can be distinguished from the other two species of Wisconsin garter snakes, the Plains Gartersnake (*Thamnophis radix*) and the Butler's Gartersnake (*Thamnophis butleri*) by their larger, more well defined heads and necks, lateral stripes on scale rows 2 and 3 (all other species have their lateral stripes on scale rows 3 and 4), and unbarred or unpatterned labials. The two Ribbonsnakes, The Western Ribbonsnake (*Thamnophis proximus*) and Eastern, or Northern Ribbonsnake (*Thamnophis saurita*) are much more slender bodied, with much longer tails proportionately comprising 27% or more of the body, light whitish orbital scales about the heads, and clean, white unmarked labials.

DeKay's Brownsnakes (*Storeria dekayi*) and Red-bellied Snakes (*Storeria occipitomaculata*) can also be commonly confused with Gartersnakes with lacking or inconspicuous dorsal stripes, but have divided anal plates, a wider dorsal stripe, and absence of larger loreal scales and more shortened, rounded, or blunt heads. Queensnakes (*Reginia septemvittata*) and Lined Snakes (*Tropidoclonion lineatum*) can also be confused with common garter snakes; however, both of these species have one to two linear rows of spots down the centers of their ventral surface undersides, and lined snakes also have much blunter, proportionately smaller heads. The mid-dorsum stripe on Queensnakes also tend to be more commonly absent or much reduced.

Common Gartersnakes can be predated upon by many different species of birds (such as crows, turkeys, kestrels, hawks, owls, and other birds of prey, and wading birds such as cranes, herons, egrets, and bitterns), other larger snakes, and a number of different carnivorous or predatory mammals including

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domestic cats, foxes, skunks, shrews, raccoons, otters, mink, moles, and opossums. Large, predatory fish, snapping turtles, and large North American Bullfrogs will also eat garter snakes as well.

Conservation Status: In Wisconsin, both the Eastern and Chicago subspecies of Common Gartersnakes are listed as “Common”. They are still regulated and protected along with all other of Wisconsin’s herptiles, however under N.R. 16. Common Gartersnakes are currently not protected or regulated federally. Common Gartersnakes are currently IUCN Red-List Least Concern (LC).