

Butler's Gartersnake (*Thamnophis butleri*)

Family Colubridae (Natricinae)

Subspecies: None currently recognized

Updated 2025



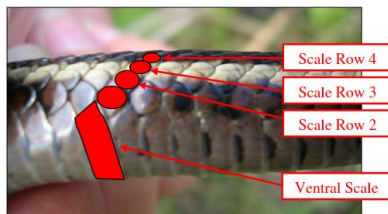
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Description/Identification: The Butler's Gartersnake is a species of small to medium-sized, stout and heavy bodied gartersnake usually ranging in total length from about 14.9 to 20.0 inches when they are adults. As with other Gartersnakes, the dorsal scales are heavily keeled, usually in about 19 rows anteriorly, and 17 rows posteriorly, and the anal plate is undivided. Butler's Gartersnakes also have comparatively and proportionately smaller, shorter, and narrower heads and indistinct necks when compared to most other Wisconsin Gartersnake species (*Thamnophis spp.*), which they may be confused among. There are usually 8 upper, and 8 or 9 lower labial scales which are usually an unpatterned or unmarked yellowish, greenish-yellow, or whitish-cream in color. The Butler's Gartersnake was named after early Indiana naturalist Amos Butler.

The dorsal ground color ranges from brown, olive-brown, or black, with or without a double row of smaller darker spots in between the dorsal and lateral stripes. The dorsal and lateral stripes can range in color from light yellow, whitish, orange-yellow, or pale greenish-yellow. The scales rows in which the lateral stripes cover are one of the primary identification methods for distinguishing Butler's Gartersnakes from the other species of Wisconsin Gartersnakes. In the Butler's Gartersnake, the distinct lateral stripes cover scale rows 3 and the adjacent halves of rows 2 and 4 on anterior portions of the snake, and most of scale rows 2 and 3 posteriorly. After death, the pigmentation begins to break down in Gartersnakes, giving them a much more bluish or bluish-gray stripes or appearances than during actual life. On the inside of the mouth, Butler's 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.



Butler's Gartersnake (Thamnophis butleri) Lateral Stripes, © WDNR Gartersnake Identification Guide

The ventral or underside is similar to those of other Wisconsin Gartersnakes, being a plain,

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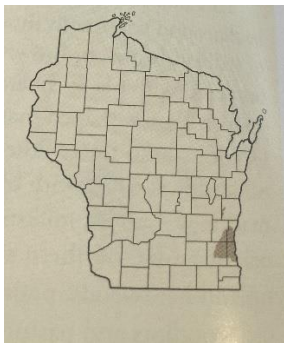
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unmarked whitish or cream to pale yellowish or yellowish-green with small, half-moon shaped spots or flecks along the marginal edges. For comparison, the Common Gartersnake (*Thamnophis sirtalis*) has lateral stripes covering scale rows 2 and 3, and the Plains Gartersnake (*Thamnophis radix*) on scale rows 3 and 4. Male and female Butler's Gartersnakes are similar in appearance, but are dimorphic, with females being larger than males, and having proportionately shorter tails (and the absence of hemipenes when probed). Neonate and juvenile Butler's Gartersnakes are similar in appearance to the adults. There are about 19 to 21 scale rows in total. The tongue is forked, and pink or red with black-tipping, and the pupils of the eyes are normally round, on a dark reddish, or reddish-brown or yellowish-brown color. Butler's Gartersnakes have 2 rows of subcaudals on the underside of the tail past the ventral opening, numbering from about 24 to 36 rows.

In some areas and in some populations in southeastern Wisconsin, Butler's Gartersnakes hybridize with the other species of Gartersnakes, making positive identification more difficult. Genetic testing and analysis of specimens can sometimes be the only way of reliably identifying and diagnosing specimens, as pure species or hybrids, in some of these cases. Butler's Gartersnakes can also be distinguished from the two Ribbonsnakes in Wisconsin by their heavier bodies, lack of orbital spots on the head, and lack of pure white, unmarked labials. Butler's Gartersnakes usually range from between 5.1 and 7.0 inches in length. No subspecies of the Butler's Gartersnake are currently recognized. Albino, or amelanistic individuals have also been found in Wisconsin.



© WDNR.

Range and Distribution: Butler's Gartersnakes are believed to be of postglacial origin, and likely having a larger range historically ranging across northeastern Illinois and northern Indiana. Today, Butler's Gartersnakes occur in a disjunct range only in Southeastern Wisconsin, which is disjunct from their main range from northwestern Ohio, Southeastern Michigan, and northeastern Indiana, and into southern Ontario, Canada. It is believed by Vogt. 1981 that the Butler's Gartersnake evolved and branched off from the Plains Gartersnake (*T. radix*) due to competition pressure from Plains Gartersnakes from the south and the west. Milwaukee, Waukesha, and perhaps Fond du Lac and Ozaukee Counties are now the mainstay counties in Wisconsin in which Butler's Gartersnakes may be found.

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Habitat: Butler's Gartersnakes are a wetland species, being found in a variety of open to semi-open wetland habitats of Southeastern Wisconsin. Wet meadows or sedge meadows, wet or wet-mesic prairies, marshes or grassy marsh edges, roadside ditches or wet, grassy areas, old fields, or vacant lots near or along marshes, lakes, ponds, or streams can be examples of habitat favored by Butler's Gartersnakes.



Ventral/Belly View. © © Antoniw.

Feeding and Diet: Butler's Gartersnakes are insectivorous and carnivorous, and a large, significant portion of these snake's diets are earthworms, and other worms. Other prey which may be eaten by Butler's Gartersnakes can include other soft bodied insects, arachnids, and arthropods, small fish, and small salamanders, frogs, or other amphibians. As with other Gartersnakes, Butler's Gartersnakes simply chase down or overpower their food with their mouths and jaws prior to ingesting.

Natural History: Butler's Gartersnakes have a uniquely fragmented and disjunct range, being found only in a few of the Southeastern Wisconsin counties. Due to this, these snakes, traditionally and historically, have been threatened in Wisconsin by the loss, fragmentation, and degradation of their wetland habitats due to urban sprawl and development. A political bane to developers and development associations of Southeastern Wisconsin, thus oftentimes halting or slowing development into Southeastern Wisconsin, the Butler's Gartersnake has long been a state of Wisconsin Threatened species since they were listed in 1997. However, in 2011, these snakes were removed from the state's Threatened and Endangered species list, but are still presently a "Special Concern" species.

Relatively little is known about the specific natural history and breeding habits and behaviors of Butler's Gartersnakes in Wisconsin, although it is likely similar to those of other Wisconsin gartersnake species, and/or to those of Butler's Gartersnake populations elsewhere in the U.S., emerging and becoming active in the year as early as March or April, and remaining active in the year until late September or October and November. As with all other Gartersnake species, however, Butler's Gartersnakes are ovo-viparous, giving birth to "live" young from about July through September. Butler's Gartersnakes tend to have smaller brood sizes than other Gartersnake species, however, ranging from about 4 to 19 young, and may have the lowest reproductive potential of the three Gartersnake species in Wisconsin and Michigan. As with most other snakes, no parental care is given afterwards, and neonate snakes are immediately on their own. Butler's Gartersnakes may overwinter individually, or with other Gartersnakes or other

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snake species within ant mounds, old foundations, log or rock piles, or in crayfish or small mammal burrows underground which go beneath the frost line.

Butler's Gartersnakes are a more mild-mannered gartersnake species when they are encountered or handled, being less likely (but still potentially able to) bite in defense than the Common Gartersnake. Their striped patterns help to break up the snake's outline, and can make the snake more difficult to spot or pinpoint as they dart away into thicker cover or grass. Butler's Gartersnake may also secrete a foul-smelling musk when they are handled as well. Vogt. 1981 notes a unique movement/defensive behavior utilized by Butler's Gartersnakes in that they can be uniquely identified by their habit of vigorously thrashing or throwing their bodies in a sideways fashion but moving forward a proportionately slow speed. It is theorized that this unusual behavior is an adaptive anti-predation behavior to startle or confuse a potential predator.

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

Conservation Status: In Wisconsin, Butler's Gartersnakes are listed as a "Special Concern" species. They were formerly a State of Wisconsin "Threatened" species. Butler's Gartersnakes are regulated and protected along with all other of Wisconsin's herptiles under N.R. 16. Butler's Gartersnakes are currently not protected or regulated federally. Butler's Gartersnakes are currently IUCN Red-List Least Concern (LC).