

# Plains Garter Snake - *Thamnophis radix*

By: Jeff LeClere

See the Minnesota HerpNet Site for more about the Plains Garter Snake

## Status

PROTECTED. Plains garter snakes are found statewide.

## Description

The plains garter snake is a medium sized Iowa snake measuring 14 to 43 inches in length (Conant and Collins, 1991). Plains garter snakes are the most heavy bodied of all Iowa garter snakes. It is non venomous and can be more docile than the eastern garter snake. The ground color is light brown to black with two alternating rows of black spots. Some specimens have an olive green background color in which the spots stand out especially well. Some populations have bright red pigment on the sides. I have seen reddish specimens in Linn and Mills Counties.

Plains garters have three longitudinal stripes. The dorsal stripe is usually yellow or orange; some have an orange stripe anteriorly that changes to yellow before mid body and remains yellow to the tip of the tail. The lateral stripes are cream to yellow and are located on the third and fourth scale rows. There is usually a row of black spots below the lateral stripes at the edge of the ventral scales. The belly may be white, yellowish, or bluish.

The head is brown or black with one or two small yellow dots near the parietal scales atop the head (these may be absent). There dark black bars on the labial scales. The scales are keeled and the anal plate is single.

The very similar eastern garter snake has the lateral stripes on rows two and three. Ribbon snakes are more slender, have a longer tails, and have white, unmarked labials.

## Subspecies

I choose to recognize no subspecies of the plains garter snake, *Thamnophis radix*. There were formerly two weakly defined subspecies of the plains garter snake, both found in Iowa. The eastern plains garter snake, *Thamnophis radix radix*, was characterized by possessing 19 scale rows on the neck and 154 or fewer ventral scales. The western plains garter snake, *Thamnophis radix haydeni*, differed by having 21 or more scale rows on the neck and 155 or more ventral scales. There were apparently slight differences in coloration and the western race has smaller dorsal spots, but this was certainly not always consistent. These two subspecies reportedly intergraded heavily in Iowa so specimens resembling either subspecies would have been found anywhere in Iowa. Additionally, the the most striking, obvious geographical morphological changes occur much farther west than the described subspecies ranges showed.

## Range

The plains garter snake is found statewide in Iowa.

## Habitat

The plains garter snake is one of Iowa's most common snakes. They occur almost anywhere there is adequate food and shelter. They are extremely adaptable to environmental changes like the eastern garter snake. Unlike the eastern garter snake, however, the majority of plains garters prefer drier habitats, though a few individuals may be found at the waters' edge. Open plains or grasslands on forest edges are favorite natural haunts. City parks, vacant lots, farmlands, or suburban backyards are also utilized.

## Habits

This is a diurnal, active snake that is usually much less aggressive than the eastern or red-sided garter snake. Instead of biting, it often expels a foul smelling musk and excrement to dissuade enemies. If cornered, it may hide its head under its coils, raise its tail in the air, and slowly wag its tail back and forth. Garter snakes are active thermoregulators and will alternately hunt and bask throughout the day. They take refuge underneath logs, rocks, boards, and in mammal burrows.

Garter snakes breed in the spring and the young are born alive in late summer or autumn. There may be 10-70 or more in a litter and are 5-8 inches in length. They may hibernate with other species of snakes and use any place they can get below the frost line. Road embankments, mammal burrows, and basements are common hibernaculum. Young plains garter snakes may hibernate with redbelly and green snakes in abandoned ant mounds.

#### Food

Plains garter snakes are voracious feeders and will eat anything they can catch and swallow, especially when warm. Earthworms, fish, frogs, toads, salamanders, mice, and birds eggs are consumed. These snakes may eat carrion. They eat their prey without constriction or venom, thus they have strong jaws to overpower their prey.