

GARTER SNAKE
(*THAMNOPHIS SIRTALIS*)



Why The Garter Snake Has Stripes

The sun was rising around the vernal pool and all around there was the sound of hustle and bustle of all the creatures scampering about getting ready for the day ahead of them. One creature in particular was already roaming about the grasses along the vernal pool: the garter snake named Huey. He was just a plain ordinary snake who lived a plain and ordinary life. Huey knew his ways around the vernal pool finding food and visiting his kind loyal friends.

One day he was going to visit his friend Louie the skunk. He was slithering along when he saw squirrel a couple of yards ahead, wobbling and trying to carry all of the nuts he had gathered for the winter. Huey thought to himself, 'I'll go see if squirrel needs any help.' When he made his way to squirrel, he got half way through saying "Hello squirrel" when squirrels nuts flew into the air and landed with a thump on the ground! Squirrel was very upset. "Huey you can't scare me like that", said squirrel. 'You blend so well into the ground that I didn't have any sign that you were there.' Huey tried to help pick up the dropped nuts but squirrel just shooed him away and he sulked, off feeling bad about his plain brown appearance. Sulking, Huey continued on his way.

He was mingling along the banks of the vernal pool when he saw Frankie frog concentrating very hard. Maybe if I sneak up really quietly I won't bother him. So Huey did that. He crept up to where Frankie was and noticed that he was about to catch a fly. Huey couldn't help but scream "GO FROG! YOU CAN CATCH THAT FLY!" Frog was so startled that he fell into the water and the fly flew away. 'Uh oh' said Huey. Frog jumped out of the water and started to yell at him "you just ruined a meal I've been trying to catch forever!" "Sorry" said Huey. "Sorry is not enough", yelled frog and he dove back into the water. Again, feeling horrible and embarrassed Huey

lumbered on.

Now Huey was feeling very bad about the events that had happened today. So he asked the advice of Mother Nature. "Mother Nature I need your help, I keep scaring everybody on accident and then they get wicked mad at me." 'I see', said mother nature. "I have a solution. I am going to put bright yellow stripes on your back so that your friends will notice you before you scare them." "Thank you so much Mother Nature!" So garter snake had no more trouble with scaring his friends

GARTER SNAKE

PHYSICAL DESCRIPTION

It's long, sleek, and scaly. What is it? It's a garter snake! These creatures are covered from head to tail in little scales. These scales feel very rough and act as the snake's skin and have a design on them that consist of three stripes that run down their back. One especially bold stripe runs straight down the middle while two fainter ones run down either side. The stripes come in several different colors; the most common are yellow, tan and orange. In between the stripes there's a brown and black checkered pattern. There are exceptions to this description though; some garter snakes appear to have no checkered pattern at all. Typically the underside or belly of the garter snake is green or yellow.

You might not think there's much of a difference between male and female garter snakes, but there is. Females are usually 18-54 inches long, while males are much shorter and thinner. Since they are **vertebrates** males have smaller backbones too. Males also have longer tails. When garter snakes are born they are about 5-9 inches long. They definitely grow a lot from when they were little!

Ever wonder how garter snakes defend themselves? Well, they have an extraordinarily large mouth that they can open up to two times bigger than they are! They do this by popping their jaw bone out of its socket and then stretching their mouth wide open. Immediately after they do this, they then show off their long pointy fangs, scaring any predators away. If for some reason that does not work they can then fiercely bite the prey. Have no fear though, they are harmless to humans.

Garter snakes have a couple of big **adaptations** they use to survive in their habitat. First, they are **cold blooded** so they adapt to the warmth of the object they are making contact with. If they become too hot they cool down by moving into a cooler place. If they're cold they use the warmth from surrounding objects to correct their temperature. They also have a body part that lets them keep heat in. If you were wondering what body part it is it's the scales. Scales keep in or store body heat for the snake. Have you ever considered how snakes slither around things that are in their way? The process takes place inside their body. Two muscles tighten and contract letting the snake move in a slithering motion. (So if I were you I wouldn't take any risk of egging the snake on.)

HABITAT

It's a spring evening and the sun is setting in a sequence of bright colors flashing on the horizon. A slithering sound fills the air, something is approaching. As you look down you see a sleek male garter snake gliding on top of the grass and **leaf litter** that surrounds the vernal pool. Since he is a **diurnal** reptile, he is looking for a place to stay away from the vernal pool for the night, like in a log or under a rock. In a way, he has a different house for every day of the week. He is coming back from a day filled with anticipation for some small mammal to come by so he can seize it up and gobble it down.

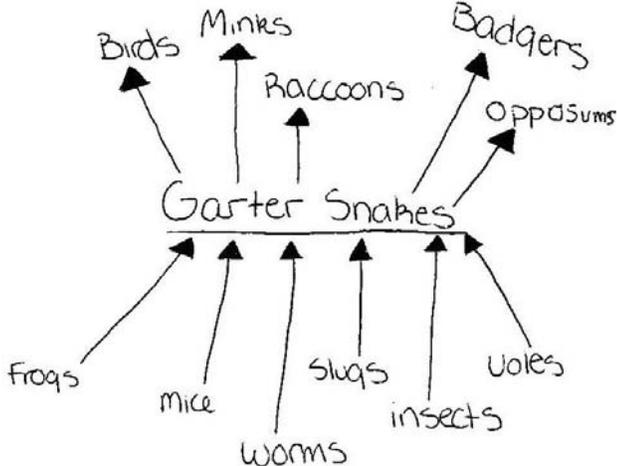
This sneaky garter snake lives around the vernal pool (sometimes), using it for a food resource and for a habitat that supports its needs for living. The garter snake lives around the **vernal pool** spring through fall. In the winter they **hibernate** in small dens in the ground that they make by themselves. They start migrating to these dens in late September. Throughout the winter this den is usually kept above freezing, letting the snake survive throughout the frigid winter. One requirement that this den must have is a water resource because garter snakes can not hold water for long. They need something in the winter weather to drink even in the winter weather.

Since garter snakes are vernal pool **facultative** species you might also find them in and around gardens, ponds, swamps, cities, parks, drain ditches, brooks, streams and marshes. You might even see one on your lawn! All of these places have a couple things in common that the garter snake needs. For example, all of the **habitats** have water and food sources. They also provide a safe environment for the snake to live. The **range** of the garter snake is Southern Canada to Central America, but they are most common in the United States.

Some things in its habitat and **ecosystem** that help it survive are the sunlight because they are **cold blooded** animals and they need warmth to stay alive. He also needs leaf litter. If the leaf litter wasn't there, neither would the food and most of the resources the snakes need. He has a small **niche** with a big impact. His niche is eating prey (small mammals; mice and rodents) and **reproducing**. So that all of the rest of the critters can find food and the vernal pool lives on.

GARTER SNAKE

DIET & FEEDING HABITS



- The Garter Snakes trophic level is a two or a secondary **consumer** because they are carnivores. (They eat meat).
- Garter snakes are **scavengers** so a lot of the food that they eat has previously been killed by another animal.
- Garter snakes hunt in an unusual way. They hunt with their tongue; which acts like our nose. So they can scent out their prey.
- When garter snakes swallow something they usually don't chew they just swallow there food whole. They do this by opening up their mouth really big.
- There is a lot of competition in the garter snakes world for food so garter snakes hunt most of the day.

NATURAL HISTORY

Have you ever heard of a snake that doesn't lay eggs? Well, now you have. Garter snakes are one of the few snakes that actually bear their young alive. They breed and find a mate in the early spring and then have a **gestation** period that is about 5 months long. When the time comes in late summer, they give birth to their children. Females can have anywhere from about 7 to 80 offspring, but in some peculiar cases the mother could have less then seven. For example, something could go wrong when she's pregnant or she could get sick.

There are a couple mating or **courtship** strategies that garter snakes have. One of them is called mating balls. Mating balls is when a hundred or more garter snakes come from far and wide traveling across a field or big piece of land and then, make themselves intertwined in a big mass and start writhing. One more is a strategy that the males perform to catch the female's attention. Believe it or not, the males mimic the females. This unusual behavior captures the female garters attention and earns the male a mate. Garter snakes reproduce through **internal fertilization**.

Garter snakes have an enormous **territory** if you look at their size. It is usually two acres big. They live in this territory pretty much until they die, unless it's impossible for them to find a mate, in which case they may move to a new area in order to survive. Their offspring will most likely stay in the same territory that they were born in.

Garter snakes have a few snakes that are very closely related to them. These snakes are the ribbon snakes, and all other types of snakes that are in its genus/ thamnophis. An easier way to think about it is that the snakes I just named are so closely related that they are like cousins to the garter snake. The garter snakes scientific name (thamnophis sirtalis) means something like garter serpent. As you can see the garter snake is one special snake!