



*Photo Credit: Todd Pierson



*Photo Credit: Jim Rorabaugh

Garter Snakes and Ribbon Snakes *(Thamnophis spp.)*

Hardy, Cold Tolerant, and Underrated

Garter snakes belong to a large and diverse genus of small to medium sized North American colubrid snakes that can vary tremendously in coloration, size, appearance, and other habits. In general, most species have 2 to 3 white, cream colored, orange, to yellowish longitudinal stripes on a blackish, brown, grayish, or olive background color. They can be highly variable in further color and pattern depending on species, subspecies, and locality. Garter snakes earn their common names from their resemblance to old fashioned garters which used to be worn to hold up socks and other articles of clothing. These snakes are also among the most widely distributed of any North American reptile, and can even be much more cold tolerant than most other snakes. In many areas, they are also among the most commonly seen and encountered snakes. In some locations in the United States and Canada, garter snakes will congregate in mass communal hibernacula by the hundreds or even thousands each spring and autumn, where they will emerge to form large breeding balls of snakes consisting on many more males than females. Garter snakes are hardy, beautiful, and oftentimes underrated snakes in the herpetocultural hobby, and can make for excellent pets for the novice and experienced alike.

Taxonomy

Life: All living, physical, and animate entities

Domain: Eukaryota

Kingdom: Animalia

Phylum/Sub Phylum: Chordata/Vertebrata

Class: Reptilia

Order: Squamata

Suborder: Serpentes

Infraorder: Alethinophidia

Family: Colubridae

Subfamily: Natricinae

Genus: *Thamnophis*

Species: *Thamnophis spp.**

**Taxonomy subject to change and revision.*

Lifespan and Longevity

If provided the proper care, garter snakes can attain longevity of 10 to 15 years or more in captivity. Up to 20 to 25 years is also not unheard of.

Species

Commonly seen and kept species include the Common Garter Snake (*Thamnophis sirtalis ssp.*), Plains Garter Snake (*Thamnophis radix*), Butler's Garter Snake (*Thamnophis butleri*), Blackneck Garter Snake (*Thamnophis cyrtopsis ssp.*), Western Terrestrial Garter Snake (*Thamnophis elegans ssp.*), Checkered Garter Snake (*Thamnophis marcianus*), Western/Orange Striped Ribbonsnake (*Thamnophis proximus ssp.*), and Eastern/Southern/Northern Ribbonsnake (*Thamnophis sauritus ssp.*).

Distribution and Habitat

The garter and ribbon snakes are a very large genus of relatively small to medium sized, terrestrial to semi-aquatic colubrid snakes indigenous to much of southern Canada, through much of the United States, and into northern Mexico depending upon the species and subspecies. The Butler's gartersnake occupies a disjunct range in the Midwestern and Great Lakes U.S., while the black necked gartersnake occupies the extreme southern and south-central U.S. and portions of northern Mexico. The checkered gartersnake occupies the south-central United States and northern Mexico as well, while the terrestrial gartersnake is very widespread over much of the western, northwestern, southwestern, to west-central U.S. The plains gartersnake occupies south central Canada, through the north-central and central U.S., and into portions of the Midwest. The common gartersnake is the most widely ranging species, with subspecies occupying much of central, southern, southeastern, and eastern Canada, much of the eastern half of the U.S., and into northern Mexico. Garter and ribbon snakes are the most widely, and most northern ranging genus of snakes in North America.

Within these vast ranges, garter and ribbon snakes occupy primarily terrestrial to semi-aquatic environments depending upon the species and subspecies, as well as their range. Generally, garter and ribbon snakes can be found in habitats from sea level to higher elevations, including a variety of forests and woodlands, savannahs, grasslands, prairies, meadows, fields, agricultural, and suburban to even urbanized areas, swamplands, marshes, dry, semi-arid deserts, scrublands, and chaparral. These snakes are only absent from perhaps the most arid, or driest habitats. These species are also often found in or near wetlands and other bodies of water near these above habitats, including ponds, lake, river, and stream margins, marshes, and ditches. As a genus, garter and ribbon snakes truly are habitat generalists.

Origin/History

Thamnophis spp. Fitzinger, 1843; *Thamnophis radix* (Baird & Girard, 1853); *Thamnophis sirtalis* (Linnaeus, 1758); *Thamnophis proximus* (Say, 1823); *Thamnophis saurita* (Linnaeus, 1766); *Thamnophis elegans* (Baird & Girard, 1853); *Thamnophis marcianus* (Baird & Girard, 1853). The many different subspecies would have other authors first describing them during other years.

One of the earliest known references to keeping garter snakes as pets comes from an 1876 article in the American Naturalist, a scientific journal. The article describes the author's experience keeping garter snakes in captivity and observing their behavior. Garter snakes took their rise when herpetoculture and the pet trade generally began during the 1950's and 1960's, but were often viewed as "trash" or "junk" snakes (along with other Natricine snakes) in favor of more exotic boas and pythons, or other species of North American colubrids. Some species such as ribbon snakes were commonly available in pet stores, but were for the most part wild-collected.

Now, however, garter snakes are becoming increasingly bred in captivity, including in a number of different color and pattern morphs and mutations among several of the species, making them truly underrated genera in herpetoculture.

Experience Level Required

Novice/Beginner.

Size

Garter snakes can range from 2 to 8 inches as neonates, and anywhere from 1 ½ to 3 ½ feet, or about 18 to 36 inches depending on the species or subspecies.

Housing and Enclosure

Enclosure System: Primarily Terrestrial to Semi-Aquatic. Housing must be sealed, secure, and escape proof. Most species of garter snakes do not require a predominately aquatic setup, and conditions that are too wet or moist without access to dry areas should be avoided. Neonate to juvenile garter snakes can be housed in a 10 gallon terrarium or enclosure. Adult garter snakes of most species should be housed in a minimum of a 20 to 40 gallon long terrarium or enclosure. Garter snakes are primarily terrestrial, and floor space is more important than height. Provide a substrate that can enable burrowing or hiding such as fine aspen shavings, cypress mulch, or coconut fibers. Do not use pine or cedar shavings, as these substrates are toxic to snakes. Provide additional basking and hiding opportunities using live or artificial foliage, rocks, logs, driftwood, or other hides. Also be sure to include a large, sturdy water bowl or dish as well that these snakes can still use for soaking and foraging for prey.

Temperature, Lighting, and Humidity

Create a thermal gradient (or a warm side) in the cage/enclosure with an appropriate sized UTH (or tank heating pad), ceramic or radiant heat emitter, or incandescent, UVA/UVB, or other heat producing bulb. Ideal temperatures for garter snakes range from 75 to 80 degrees F on the cool side and 80 to 85 degrees F on the warm side. Most species of snakes have fairly simple and undemanding heating and lighting requirements in captivity, and do not require additional UVA/UVB lighting, although providing it can be greatly beneficial for their health, immune system, and overall wellness. Also be sure to spot clean the enclosure for urates, feces, or uneaten food at least once per week. Be sure to periodically replace the substrate, clean, and disinfect the enclosure and its furnishings at minimum every 2 to 3 months. More specific lighting, heating, and humidity product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well. Garter and ribbon snakes should be maintained at relatively moderate relative humidity levels, which may vary somewhat depending on the species and subspecies, from about 40 to 60%, with additional humid hides or retreats to assist with shedding and overall health.

Feeding, Diet, and Nutrition

Carnivorous; In the wild, garter snakes are carnivorous, and will prey upon insects, worms, and other invertebrates, as well as small fish, amphibians, smaller reptiles, and occasionally small rodents or birds. In captivity, garter snakes can be given nightcrawlers, earthworms, redworms, and feeder fish of appropriate nutritional value. Some species will accept frozen thawed rodents, such as rats and mice as well. Frozen fish can also be given, but with many piscivorous, or fish eating snakes, including garter and water snakes, husbandry issues with thiamine deficiencies can arise if they are not nutritionally balanced. Some of these food items for garter snakes may also require supplementation with vitamin D3 or calcium supplements for optimal health and well-being. Food items can gradually be increased as needed depending on the age, size, and overall health of the animal. A general rule of thumb to follow when feeding snakes is to provide prey items that are approximately the same width as the widest point of the snake. More specific dietary and supplementary product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Handling

As with many snakes, neonate and juvenile garter snakes may initially be nervous and defensive. They may musk or defecate, or bite when alarmed. Handle your garter snake gently and deliberately, but do not drop or injure the animal. Many garter snakes will become more tolerant,

inquisitive, and accustomed to handling as they become older. Garter snakes will often even become accustomed enough to be hand fed.

****Also be sure to practice basic cleanliness and hygiene associated with proper husbandry after touching or handling any animals or animal enclosures to prevent the possibility of contracting salmonellosis or any other zoonotic pathogens****

Contact

Authored by Eric Roscoe. For any additional questions, comments, and/or concerns regarding this animal, group of animals, or this care sheet, please email and contact:

Eric.S.Roscoe@gmail.com

Disclaimer: Note that the information provided in these, or any care sheets, are not intended to be all-exhaustive, and further research and care should always be sought and provided when it comes to any species one may prospectively be interested in. These care sheets are also not intended to serve as substitutes for professional veterinary medical care and husbandry should any animal require it. Always seek proper and professional veterinary care for any animal should the need arise, and be prepared ahead of time for any and all husbandry costs and expenses that may occur with any animal beyond the initial purchase. Any animal owned is ultimately a matter of personal/individual care and responsibility. We cannot make any claims or guarantees regarding any information in this care sheet therein. This care sheet may be reprinted or redistributed only in its entirety.

***Copyright, 2023**