



Common Garter Snake

Scientific name: *Thamnophis sirtalis*

Three subspecies of the Common Garter Snake are found in British Columbia. The Puget Sound Garter Snake (*T. s. pickeringi*) is found on Vancouver Island and in the lower mainland. The Valley Garter Snake (*T. s. fitchi*) is found across most of southern B.C. and along the northern coast almost to the Yukon. Finally, the Red-sided Garter Snake (*T. s. parietalis*) occurs in eastern B.C. towards the prairie provinces.

Adults range in size from 46 cm to 1.3 m. Snakes in northern locations tend to be larger on average than their more southern counterparts. While markings vary between the 3 subspecies, all of these snakes have a black to greyish green body, a large, distinct head, and a bright yellow to greenish yellow stripe down the back. In addition, they occasionally sport red side stripes or red spots or blotches that combine with their other markings to form unique and beautiful patterns.

If captured, a Common Garter Snake will try to escape by releasing a smelly mix of musk and feces from its vent (opening to the digestive and reproductive tract at the base of the tail). By writhing within its captors grip, this potent mix is rubbed all over both the snake and the captor. If this strategy is unsuccessful, Common Garter Snakes are known to flatten their heads and strike aggressively.

Making a living

Common Garter Snakes spend the winter underground in dens (hibernacula). They may have to travel a few kilometres to reach a good den site, and these dens often are shared with other Garter Snakes, Racers, Rubber Boas, and Rattlesnakes.

Mating occurs in the spring in most areas, although occasionally it has been observed in August. Males emerge from the hibernacula first, followed a short time later by the females. No sooner have the females emerged than the males begin to court them. Often many males will pursue a single female – the result is a mating ball of snakes, made up of many eager males, and somewhere in the middle of the ball, one very in-demand female.

Males are attracted to females by their scent, and initiate mating by contact along the length of the female's body. Once a female has mated, she forms a "plug" (called a copulatory plug) at the opening to her reproductive tract. This likely prevents other males from mating with her. Males seem to be able to sense the presence of the plug, and do not pursue females that have mated.

Common Garter Snakes are live-bearing, meaning their young grow inside them until fully developed. The young are born live sometime in July or August. Females usually have between 10 and 15 young per litter, but they can have as many as 70 to 80 (that's a tummy full!) or as few as 5. Biologists value the Common Garter Snake in Canada as these snakes represent some of the northern most populations of reptiles in the world. These snakes reproduce less frequently, and have larger young than their southern counterparts. By studying these populations, we can learn how reptiles adapt to relatively harsh northern environments.

After mating, most Common Garter Snakes migrate to summer hunting grounds. These hunting areas often are near water, where the snakes can forage, bask on cattail mats and logs, or dive under water to avoid predators. Common Garter Snakes can orient using the position of the sun. This helps them find their way back to the hibernacula in the fall.

What's for dinner?

Common Garter Snakes hunt primarily during the day, but occasionally are seen foraging at night. Their active period varies with the season.

Adult snakes enjoy slugs, frogs, toads, salamanders, tadpoles, and insects. Occasionally they also will eat small mammals, birds, fish, and other reptiles. Young snakes seem to exist mainly on earthworms, at least until they are large enough to tackle more challenging prey.

Common Garter Snakes have a fascinating ability to deal with prey that other predators find toxic. These snakes can eat both the toxic Rough-skinned Newt (*Taricha granulosa*) and poisonous Western Toad (*Bufo boreas*) without getting sick. That's not to say they are unaffected, however. As one biologist observed, the poison does seem to daze the snake, making it sluggish to the point of appearing inebriated!

Places and spaces

The Common Garter Snake is the most widespread snake in Canada. It is found in riparian areas (along streams, rivers, and lakes), marshes, and wet meadows. Common Garter Snakes are found both in valleys and high elevation areas, from grassland habitats to deep coniferous forests. The snakes can survive within these varied habitats as long as they have good hibernacula that enable them to avoid freezing during the winter, and summer hunting range with ample prey.

Past, present, and...future?

The Common Garter Snake is the most abundant snake in Canada. Due to its large population, wide distribution, and apparent adaptability, the Common Garter Snake is yellow listed provincially. The species apparently is secure and not at risk of extinction.