



Western Yellow-bellied Racer

Scientific name: *Coluber constrictor mormon*

Western Yellow-bellied Racers are long, slender snakes with large, smooth scutes (scales). Adult Racers range from 50 cm to 2 m in length. Racers are uniformly grey to olive-green on their back, and white to yellow on the belly. But Racers are yellow-bellied in colour only – Racers are curious and active snakes, and if cornered, will defend themselves aggressively!

Adult Racers look quite unique because of their beautiful uniform colouring and large eyes. However, because Racers are born with rusty brown blotches on their back and sides, juveniles are confused with other species of snakes such as the Wandering Garter Snake, the Gopher Snake, or the Rattlesnake. Remember, juvenile Rattlesnakes have a “button” (the beginning of a rattle) at the end of their tail. Juvenile Garter Snakes have dull, keeled scutes (their scales are ridged), and juvenile Gopher Snakes have square-shaped blotches.

Making a living

The name 'Racer' is no accident – these snakes are built for speed. Racers are active snakes, and they use their excellent vision and speed to hunt during the day. Not only are Racers good on the ground, they also are good climbers and occasionally are found hunting high in the bushes.

The Racer life cycle begins in May when snakes emerge from their winter dens (called hibernacula) to mate. In July, females lay about 6 leathery eggs in a sandy hole or among rocks on a south-facing slope. The sun keeps the eggs warm so the young inside develop. The sand and rocks help to protect the eggs from water loss, and from animals that may see the eggs as dinner! The eggs hatch in late August to early September, and the juvenile Racers emerge ready to fend for themselves. Their brownish splotches help to camouflage them from predators like hawks and badgers during the first and most dangerous year of their lives.

Once autumn arrives, adults and juveniles alike find hibernacula to wait out the freezing months of winter.

What's for dinner?

Western Yellow-Bellied Racers use their excellent eyesight to hunt down a variety of prey. While the Racer's species name is '*constrictor*', which means an animal that constricts or squeezes its prey to death before eating it, Racers don't constrict their prey. Instead, they tackle it with their teeth and wrestle it down before swallowing it as quickly as possible!

Young Racers mainly munch on insects like grasshoppers, crickets, and caterpillars. Adult Racers often tackle larger critters like mice, voles, small reptiles, frogs, and even the occasional bat or bird! However, once insects become plentiful during late spring and summer, adult Racers switch from larger vertebrate prey to grasshoppers and crickets. Scientists have observed Racers sliding their heads down blades of grass to scare up crickets and grasshoppers hiding at the base of the grass clump.

Places and spaces

Western Yellow-bellied Racers are found in the hot, dry interior regions of B.C., including parts of the Thompson, Okanagan, Fraser and Similkameen watersheds. Racers live in grasslands, open sparsely treed forests, farmland, and marshy or riparian areas. Within these areas, Racers need 3 critical habitats: hibernacula (winter dens), summer range with food and shelter, and nesting sites.

Hibernacula often are holes in the ground or among rocks on south-facing rocky slopes. Hibernacula need to be deep enough so that the snakes neither freeze nor warm up too quickly on warm winter days. Sometimes Racers over-winter in traditional hibernacula with Rattlesnakes, Gopher Snakes, and Garter Snakes, but Racers may also den up individually, or use different dens each year.

Not much is known about Racer nesting sites. Many snakes (even of different species) may lay their eggs communally (together in the same site). The nesting site usually faces south, and it may be sandy, grassy, or even rocky. Females will occasionally travel more than half a kilometre to lay their eggs at a particular site – that's a lot of ground to cover on your belly!

Past, present, and...future?

Little is known about Racer population sizes. Thirty years ago, scientists considered them abundant in certain areas, and in 1991 Racers were not considered at risk. However, because Racers like the same habitats that people do (dry hot areas in river valleys), the provincial government blue-listed racers. Blue-listed species are considered vulnerable to human activities and natural events. If you see a Racer, contact your local branch of the Ministry of Water, Land and Air Protection.

The main threat to racer populations is habitat loss – often Racers live in developed or agricultural areas, and there are few protected spaces for Racers with all of the critical habitats they require. Racers are limited in the distance they can travel from their dens, limiting the habitat available to them.