

# **North American Racer (*Coluber constrictor*)**

**Family Colubridae (Colubrinae)**

**Subspecies: Blue Racer (*Coluber constrictor foxii*); Eastern Yellow-bellied Racer (*Coluber constrictor flaviventris*)**

**Updated 2025**



© Richard Berling



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Juvenile, © Eric Roscoe

**Description/Identification:** The North American Racers is a large, slender bodied, very smooth and sleek-scaled species of snake, usually measuring in total length from about 35.5 to 70.8 inches in length as adults. The head and neck are typically distinct and well-defined, a long, deepened brow or ridge lines each side of the head above the large, forward-facing eyes. The irises in North American Racers are also often lined with a yellow, orange, yellowish-brown, or golden iris, giving them a unique, distinct appearance, and the pupils are normally round. The anal plates in North American Racers are also divided, and the number of scale rows usually averages between 15 and 17 rows. A light to dark band or mask may run through the eyes, and the labials to the tip of the snout may be lighter and un-marked white or yellowish, and the tip of the snout is also slightly enlarged, but otherwise the head is unpatterned in adults. The tongue is forked, and primarily black. On the inside of the mouth, North American Racers have one to two rows of tiny, recurved teeth on the maxillae and lower quadrate bones of their upper and lower jaws which are normally covered by a fleshy membrane. These teeth, however, are not large enough to cause anything more than a superficial laceration, however.

North American Racers are highly variable in their phenotypic coloration, depending on the subspecies and region or area in which they are found. In Wisconsin, ground coloration of adult North American Racers may also be variable, ranging from a solid, un-patterned, uniform dark to light blue, teal or greenish-turquoise-blue, gray or slate gray, or brownish, often grading from a lighter blue on the head and neck, to darker brown or purplish-brown or grayish towards the tail. The ventrolabial areas and surfaces may often be a much brighter blue. North American Racers have 2 rows of subcaudal scales on the underside of the tail past the ventral opening, numbering from 33 to 60 rows, although this may vary somewhat depending on the subspecies.

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The lower lateral and ventral surfaces of the adult North American Racers can vary from a yellow on the chin, throat, and anterior underside of the body, grading into a cream-color or white or pale yellow-white further down across the remainder of the ventral surface. Small brown, reddish, to reddish brown half-moon shaped spots and flecks may also line or be scattered along the ventral surface, particularly in juvenile and subadult North American Racers. These spots may range from about 2 to 4 per ventral scute.

Hatchling and juvenile North American Racers are drastically and ontogenetically different in their coloration and patterning, having the same proportionally large heads and eyes as the adults, but instead having a light grayish or light brown ground color with three rows of large, irregular black, brown, or reddish-brown dorsal and lateral blotches, fading or grading into a more uniformly colored grayish or brownish tail. The sides, and areas around the head in juvenile North American Racers are also speckled or mottled with white. They are between 7.0 and 14.0 inches during this time. This juvenile coloration and patterning is retained until the snake's second or third year, and their adult coloration begins to develop at about 31.4 to 35.4 inches, but can still be visible on younger, subadult North American Racers.

Hatchling and juvenile North American Racers are very similar in appearance to young Eastern Milksnakes (*Lampropeltis triangulum*), juvenile Eastern Foxsnakes (*Pantherophis vulpinus*), or other species of spotted or blotched snakes when young, and can often be confused with one another. The proportionally larger heads and eyes, smooth scales and slender bodies, and patterning fading to uniform towards the tail can distinguish young, juvenile North American Racers from young Eastern Milksnakes, or other species of snakes. The subspecies of North American Racer occurring in Wisconsin remain somewhat unclear; however, Wisconsin populations most lean towards characteristics of the Blue Racer (*Coluber constrictor foxii*) or the Eastern Yellow-bellied Racer (*Coluber constrictor flaviventris*). Most Wisconsin specimens, though, are seldom as boldly or vividly "blue" as Michigan, Ohio, or Indiana "Blue" Racers. Both male and female North American Racers are similar in appearance, aside from being slightly dimorphic in their size and tail lengths; with males having proportionally longer tails than females, or by examining for the presence of hemipenes in the males.



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**Range and Distribution:** North American Racers have a very large and wide distribution throughout much of the United States and into northern Mexico, depending on the subspecies. The Blue Racer (*C. constrictor foxii*) occurs from southern Ontario, Canada, through Ohio, lower Michigan, Indiana, Illinois, Iowa, and Wisconsin in the Midwestern U.S. The Eastern Yellow-bellied Racer (*C. constrictor flaviventris*) occurs along the western periphery of the Blue Racer's range in Wisconsin, Minnesota, and Iowa, southwest to Texas and northern Mexico, and northwest through the Great Plains states into Montana and extreme southern Saskatchewan Canada.

In Wisconsin, North American Racers are predominately found in the Unglaciated Driftless region of western and Southwestern Wisconsin along the Mississippi and Wisconsin River basins, and their larger tributaries. North American Racers may also occasionally turn up in barrens, savannah, or swampy wetland margin habitats away from along the main rivers, in central or west-central Wisconsin. Records from Southeastern Wisconsin are probably old records.

**Habitat:** In Wisconsin, North American Racers are most commonly associated with deep, sandy or loamy soiled habitats in relatively large, undisturbed tracts within the Driftless Region of Western and Southwestern Wisconsin. They are most commonly found in dry sand prairies, oak savannahs, old fields, clearings in open, dry sandy oak-juniper woodlands or pine barrens and sand barrens, or sandy areas along bluffs. They can also be commonly found along dry prairie hillsides, rocky glades, and steeper river bluff prairies with south to southwest facing exposure, or occasionally in oak barrens elsewhere in the state away from the main rivers. They may also be found along brushy or vegetated areas along agricultural areas or woodlands, or lowland forests nearby to these above habitats.



Juvenile Ventral/Belly View. © Reptiles and Amphibians of Iowa.

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*Western Yellow bellied (Identical to Eastern Yellow-bellied) and Blue Racer Subspecies; Adult Ventral/Belly View. © Gary Nafais and Sierra Snakes.*

**Feeding and Diet:** North American Racers are carnivorous, and are active, primarily diurnal hunters using their keen sense of smell and vision to locate prey. A wide variety of prey are eaten by these snakes, including large insects, arthropods, and other invertebrates (particularly by juvenile North American Racers), frogs, salamanders, or other amphibians, other smaller reptiles including lizards such as Six-lined/Prairie Racerunners, other smaller snakes, small birds, bird or reptile eggs, or small mammals such as rodents. Despite their scientific name, *Coluber* “constrictor”, North American Racers are not constrictors, instead usually simply chasing down and seizing their intended prey with their strong jaws and consuming and overpowering them live. They may use their coils to pin or to stun their prey with, however.

**Natural History:** North American Racers are primarily diurnal snakes, becoming active in the year by mid-to late April or May, where they emerge from their overwintering sites within rocky crevices and outcroppings on bluff and hillsides, or from mammal or other animal burrows underground. Mating and copulation most commonly occur after emerging from overwintering, usually in May or June. North American Racers are oviparous, laying eggs during about late June or July. They may lay their eggs in sandy cavities along sand bows or sand dunes, or underneath or within humid, somewhat moist rotting logs, stumps, under large flat rocks, or other humid ground debris, and where about 6 to 25 eggs are usually laid.

As with most snakes, North American Racers do not provide any parental care for their eggs or young after they are laid or hatch. The eggs then usually hatch by late August or September, and are ready to fend on their own. North American Racers are primarily terrestrial, but can also readily climb well up into trees or other vegetation as much as one or meters off the ground, and can also swim well to escape predation, or in foraging and searching for food. North American Racers may also ambush prey from these higher, elevated positions, and remain active throughout the year until about September or October. During the summer, after mating, they will disperse into the surrounding area, where they may

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be found near or amongst areas of thicker vegetation such as hedgerows, brush piles, or thicker sumac or raspberry bushes. During the hotter summer months, they may become more nocturnal or crepuscular, and when they are not active, North American Racers may be found deeper underground in burrows, underneath tin or boards, large flat rocks, logs, or other debris piles or other cover. North American Racers are said to be more tolerant of hotter temperatures than many other snakes. These snakes are perhaps easiest to spot and approach while they are still emerging and basking earlier in the spring, or in the fall prior to overwintering again.

North American Racers are among North America's fastest moving snakes, and are able to travel at speeds of up to four to six miles per hour when they are chased or threatened. Although in the grand scheme this may not seem fast, it is for a snake, and North American Racers can be very difficult to catch when encountered out in the open amongst thicker grass and vegetation, or when they have access to nearby burrows which they will quickly slide into when given the opportunity. If they are captured or cornered, North American Racers may coil defensively and readily strike or attempt to bite, although some will behave more passively-defensively by coiling their bodies into a somewhat loosely tightened ball while hiding their heads. Like many snakes, they will also often rapidly vibrate the tips of their tails in dry grass or leaves, or against other objects to create a startling whirring or buzzing sound much like a rattlesnake. They will also emit a foul-smelling musk, as will many other snakes. North American Racers are harmless and non-venomous, however, and can also be highly beneficial in the environment in their ability to control and maintain not only rodent but other insect populations.

In the fall, North American Racers may overwinter individually, or communally with other North American Racers, or with other snake species in the area such as Gartersnakes, Timber Rattlesnakes, Bullsnares (or Gophersnakes), Central Ratsnakes, and other species. North American Racers are large, active snakes requiring relatively large, undisturbed tracts of suitable habitat, and are most threatened, conservation-wise in Wisconsin by the natural succession, fragmentation or loss of habitat, as well as direct persecution and road or highway mortality. North American Racers can be kept in captivity, but generally tend to be a less suitable or less desirable pet-snake species, being large, nervous, and active snakes, and thus requiring large enclosures or sufficient amounts of space. North American Racers are also protected in Wisconsin, and must be acquired from a legal source, if they are to be kept in captivity.

The main natural predators of North American Racers can include a number of large birds such as birds of prey (hawks, owls, eagles), turkeys, some other snake species, and a number of carnivorous or predatory mammals including weasels, skunks, opossums, raccoons, foxes, coyotes, mink, domestic cats, domestic dogs, and bobcats.

**Conservation Status:** In Wisconsin, North American Racers are listed as a "Special Concern", or "Protected Wild Animal" species under N.R. 16. These snakes are regulated and protected along with all other of Wisconsin's herptiles under N.R. 16. North American Racers are currently not protected or regulated federally. North American Racers are currently IUCN Red-List Least Concern (LC).