

Western Rattlesnake (*Crotalus oreganus*)



Species Description

As Oregon's only venomous reptile, few other species in Oregon generate fear and false perceptions like the western rattlesnake. Their reputation of aggression is unfounded; although they will defend themselves when threatened, rattlesnakes do everything in their power to avoid confrontation. They stay still and blend in with the environment to remain unseen, shake their rattles loudly to warn intruders of their presence, and escape for cover whenever possible. Rattlesnakes need to save their venom to immobilize and digest their prey, so they are very reluctant to use it in encounters with people. By being alert in the woods and keeping your distance from snakes when you encounter them, you can keep yourself and rattlesnakes safe.

Western rattlesnakes are heavy-bodied snakes with a slender neck and a broad, triangular head that is noticeably wider than their body. Overall, they are typically light brown to greenish-brown in color, with a pattern of darker squarish patches down their back and sides. Color variation reflects the environment a population is found in, helping them camouflage effectively. Juveniles look similar to adults, with a higher contrast pattern and a single button rattle. The longest western rattlesnake recorded grew over five feet long, but in Oregon, adults average only 24 inches in length. There are no other rattlesnake species in Oregon.

Range and Distribution

The range of western rattlesnakes extends from south central British Columbia to Baja California, and east to Idaho, Utah, and Arizona at elevations ranging from sea level to around 11,000 feet.

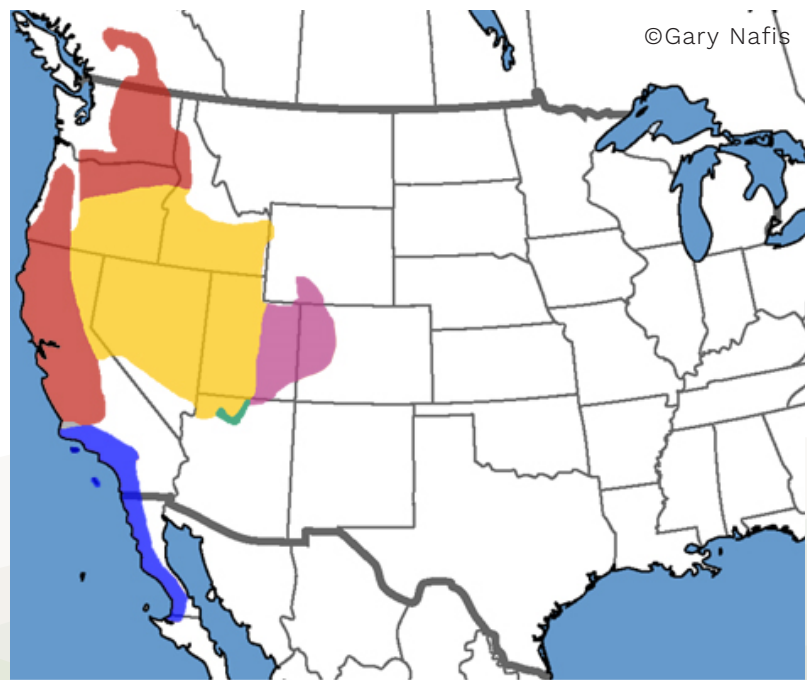
In Oregon their range includes the Klamath Mountains, the Columbia Plateau, the Northern Basin and Range, the Blue Mountains, east Cascades, and the southern end of the Coast Range. There is a very restricted range in the Willamette Valley, with only three small sites known to be currently occupied. Generally, they are not found above 7,000 feet elevation in Oregon.

The taxonomy of this species requires further study, and some authorities recognize five geographically distinct subspecies including two (*C. o. oregonus* and *C. o. lutosus*) that occur in Oregon. See rangemap (right) for details on the approximate distribution of all currently recognized subspecies of western rattlesnake within this species complex.

Habitat Characteristics

The western rattlesnake occupies a wide variety of habitats in dry areas with low or sparse vegetation including rocky slopes in mountainous forests, mixed woodlands, grasslands, and sagebrush habitats.

Within their home range, western rattlesnakes require summer foraging habitat and suitable sites for overwintering hibernacula. Hibernacula are sheltered locations typically located in cracks or fissures of rocky outcrops or on talus slopes where temperatures remain above freezing year-round that snakes congregate in during the winter. Within their habitat, they require cover objects and basking surfaces for protection and warmth.



Approximate Distribution of *Crotalus oreganus* - Western Rattlesnake

- *C. o. abyssus* - Grand Canyon Rattlesnake
- *C. o. concolor* - Midget Faded Rattlesnake
- *C. o. helleri* - Southern Pacific Rattlesnake
- *C. o. lutosus* - Great Basin Rattlesnake
- *C. o. oregonus* - Northern Pacific Rattlesnake

Diet and Foraging

Western rattlesnakes are carnivores, and feed on birds, frogs, other snakes, lizards, insects, and small mammals. They are even able to eat prey as large as rabbits!

Like all rattlesnake species, western rattlesnakes are pit vipers. They have two pits on either side of the snout that allow them to sense heat when hunting warm-blooded prey. Rattlesnakes have long, hollow fangs connected to venom glands that they use to promptly immobilize their prey. They are sit-and-wait predators, coiling motionless in suitable foraging sites for long periods of time until prey comes within striking distance. Once they strike a prey item and inject it with venom, they release the animal and follow it until it stops moving enough that they are able to swallow it whole.

Life History and Ecology

Western rattlesnakes are long-lived animals with a low reproductive rate. Individuals can live up to 20 years old. They are mainly nocturnal or crepuscular (active during dawn and dusk) during the hot summer months. However, they can also be active during the day in more moderate temperatures. Like other reptiles, they rely on the environment to maintain their body temperature (they are ectothermic, or “cold-blooded”). They bask in the sun to warm up in mornings and evenings, and move into the shade when they get too hot. They become inactive during the winter when it is cool and their metabolism slows down, denning in burrows, caves, or deep in rock crevices, sometimes in large groups of snakes that consist of multiple species.

Rattlesnakes are seasonal migrants, moving up to two miles between winter dens and summer foraging habitats. They return to their winter hibernacula in the fall in September and October, where they stay until the spring. On warm winter days, snakes may exit the hibernacula to bask. They are a social species, and do not defend territories. Their home range typically includes a summer range, one or more dens, and the area they travel between them.

Mating occurs in July and August while snakes are on their summer range. Mated females undergo delayed fertilization until after emerging from hibernation the following spring. They have litters of 3 to 12 young in September and October, over a year after mating. Females only reproduce every two to four years. They are ovoviparous, meaning that they hold developing eggs inside their body and give birth to live young. Young stay in their mother's hibernaculum for their first year.

Predators of western rattlesnakes include other snakes, raptors, black bears, and skunks.

Fun Facts

- Female rattlesnakes that are carrying eggs stay near the hibernaculum all summer and do not eat! They give birth to live young in the fall and enter hibernation soon after. In the following spring these new moms emerge emaciated after losing so much weight to produce young! It takes these mothers a long time to recover.
- When alarmed or threatened they shake their tail, producing a buzzing sound caused by the rattle segments in their tail rubbing together. Hatchlings only have a single rattle segment, and without another to rub against when they shake their tail, juveniles can't make a rattling sound!
- If two males encounter one another while pursuing a potential mate during the breeding season, they engage in “combat dances”, where they lock necks and slam one another to the ground until the weaker snake retreats. The “winner” stays to mate with the female.
- Rattlesnakes can rotate their fangs from the roof of the mouth down into a biting position, and can control the amount of venom they inject.

Conservation

Western rattlesnakes were previously found throughout the Willamette Valley from Cottage Grove to Portland. In fact, the Bush Park neighborhood in Salem was referred to as “Rattlesnake Hill” during the 1850s. However, as the valley became more densely populated and developed, western rattlesnakes lost their habitat and their population declined. Within the Willamette Valley, they can now only be found in a few scattered locations in the southern part of the valley. Their population is more robust in other parts of the state.

Rattlesnakes have a long history of being hunted due to the misconception that they are aggressive and inherently dangerous. Hunting and other kinds of persecution of rattlesnakes by humans can devastate populations on a local scale. They are vulnerable to habitat loss, habitat fragmentation, and mortality by vehicle strike.

If you encounter a rattlesnake, it is important to remember they only attack out of self-defense. When you hear rattling, stop and look to see where the snake is before you leave the area - it is giving you a warning that it perceives you as a threat. If you give them the opportunity to escape, they will likely leave. You can keep yourself and rattlesnakes safe by giving them a wide berth when you encounter them in the wild. Keeping pets on leash or under control in snake habitat can help prevent your animal getting bitten. In the event of a rattlesnake bite, leave the snake where it is, and seek immediate treatment.

In Oregon, western rattlesnakes are a Sensitive Species and an Oregon Conservation Strategy Species. For more information about their conservation status including special needs, limiting factors, data gaps, and conservation actions, refer to the Oregon Conservation Strategy.