

Western Slender Glass Lizard (*Ophisaurus attenuatus*)

Family Anguidae



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Description/Identification: The Western Slender Glass Lizard is a medium-sized to large, entirely limbless, elongated-bodied legless lizard measuring in length from about 22.0 to 44.0 inches, snout-to-tail length, and is comprised of about 2/3rd's or more tail. Snout-to-vent length, without their tails, about 8.6 to 10.0 inches, making them the largest of Wisconsin's four lizard species. The tail begins at the indistinct cloacal or ventral opening.

Western slender glass lizards are commonly confused with, or are referred to as “glass snakes”, from their purported ability to “shatter” their very long tails, appearing as though they are portions of their bodies. However, glass lizards are not in fact snakes, and possess several additional characteristics distinguishing them from snakes. The head is broad, and enlarged, being “Anguid-lizard” like, but little to no discernable neck. Moveable eyelids, unlike snakes, which possess clear spectacles over their eyes, as well as two to three outer, external ear openings on each side of the head, unlike snakes, also distinguish glass lizards from snakes. A distinct lateral fold, or groove also runs longitudinally down the body, which is another feature which snakes lack. The tongue is also thick and fleshy, unlike snakes, and moderately blunt at the end and not forked as in snakes.

The scalation, while smooth and very sleek, is also more angular and plated in shape and form than in most snakes. Dorsal ground color of western slender glass lizards ranges from a tan, buff, bronze, or copper-color, or brown with one or two darker brown or reddish-brown dorsal median stripes running longitudinally down the back of the body. This stripe, about one scale row wide, runs from about the back of the head and neck to the last third of the tail. Two wider, thicker, dark brown, reddish-brown, or black lateral side stripes paralleling the dorsal groove above along each side of the body are also present.

Below the dorsal groove are four narrower reddish or brown longitudinal stripes alternating with white or lighter colored stripes extending the length of the body towards the tail. Regenerated portions of the tail tend to be a solid uniform grayish or brownish. The underside, or ventral surface, is usually a solid,

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unmarked pale yellowish, cream-color, or whitish. Hatchling or juvenile western slender glass lizards are very similar in appearance to the adults, but tend to have more boldly striped colors and patterning than adults. Glass lizards also lack the flexible quadrate bones and associated jaw musculature which most snakes possess.

Male and female western slender glass lizards are almost identical in appearance, and can be very difficult to sex, except for males having a longer SVL-length than females. The subspecies occurring in Wisconsin is the nominate form, the western slender glass lizard (*Ophisaurus attenuatus attenuatus*).



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Range and Distribution: The western slender glass lizard ranges in the Midwestern and Central United States from much of Illinois, through Iowa and Missouri, south to eastern Texas, Oklahoma, and Kansas, and east to Arkansas and Louisiana. Wisconsin is the northern-most range of western slender glass lizards, and is also disjunct from the main range, occurring only within portions of west-central to central Wisconsin.



Ventral/Belly View. © Herps of Arkansas.

Habitat: Western slender glass lizards are strongly associated with, and are only found in deep, sandy soiled habitats. These habitats may include old fields, oak barrens, pine barrens, oak savannahs, or sand prairies. These types of habitats have rapidly been lost, degraded, or fragmented, contributing greatly to the decline of western slender glass lizards in Wisconsin. In habitats converted to pine plantations or to agriculture, western slender glass lizard populations disappear quickly.

Feeding and Diet: Western slender glass lizards are insectivorous or carnivorous, feeding on a wide variety of invertebrate or small vertebrate prey that they can catch and consume. Insects and insect larvae, arachnids, snails and other mollusks, earthworms, terrestrial crustaceans, and other types of arthropods and invertebrates. Glass lizards may also eat smaller vertebrates occasionally, such as smaller

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reptiles or amphibians, or very small newborn birds or mammals if the opportunity arises. As with other lizards, western slender glass lizards forage by flicking the ground with their tongues in search of food.

Natural History: The Western slender glass lizard is one of four native lizard species in Wisconsin, and is the only species of legless lizard in the state. Due to their rare and secretive nature, relatively little is known about the specific habits or natural history of western slender glass lizards in Wisconsin, although they may emerge and become active from as early as mid or late April, or May, and remain active through to September or October, where they will then overwinter in burrows deep underground.

Western slender glass lizards may be active throughout the heat of the day, but are very fast moving and wary, usually disappearing within clumps of thicker grass or vegetation before they can be observed more closely. If they are seized, or grabbed, they are able to detach all, or portions of their tails, which are very long, and comprise as much as two-thirds or more of the lizard's bodies. This has lent to the common folklore belief that and name of "glass" snakes, or "glass" lizard, giving the illusion that their bodies shatter. Their detached tails, which may be broken off in one, or several pieces, thrashes and wriggles for several minutes afterward, long enough to distract a potential predator for the lizard to escape.

A new tail will generate within a matter of several weeks, but will never be as long or colored as the original, and it is not uncommon to find glass lizards mostly with regenerated tails. The tails, or pieces of the tail, also never re-attach, or grow back together as in the folklore. Female glass lizards are known to lay up to 13 to 15 eggs in a sandy chamber constructed underground in burrows, and which are brooded and guarded by the females. Little more is known about the mating, and reproduction of glass lizards in Wisconsin, unfortunately. Western slender glass lizards may also bite if handled; however their mouths and teeth are usually not consequential enough to break skin. Inside the mouth, western slender glass lizards have a row of slender, cylindrical teeth along the upper and lower quadrates and maxillaries, and the shafts are mesiodistally compressed and bulge linguallly; the apices are curved linguallly and posteriorly and have weakly developed cutting edges.

Western slender glass lizards are sandy-soil habitat obligate species, and rely heavily on these habitats. They have declined considerably in Wisconsin due to habitat loss and fragmentation, natural succession, and the application of agricultural chemicals and pesticides. Western slender glass lizards are able to move quickly through grass or other vegetation, but unlike snakes, lack the internal skeletal and musculature to be able to utilize more open surfaces as efficiently. They are only able to utilize a slide-pushing form of locomotion when on these flat open surfaces. This has led to road and highway mortality and habitat fragmentation by roads another significant contributor and conservation concern pertaining to the decline of western slender glass lizards in Wisconsin.

Western slender glass lizards can be predated upon by many different species of birds (such as crows, kestrels, hawks, and other small birds of prey), snakes, and a number of different carnivorous or predatory mammals including domestic cats, foxes, skunks, shrews, raccoons, moles, and opossums.

Conservation Status: In Wisconsin, western slender glass lizards are currently listed as a "State

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Endangered” species. Where they do occur, they are rarely to never abundant, usually in very isolated pockets or populations. They are regulated and protected along with all other of Wisconsin’s herptiles, as a result. Western slender glass lizards are currently not protected or regulated federally. Western slender glass lizards are currently IUCN Red-List Least Concern (LC).