

# American Toad (*Anaxyrus americanus*)

*Family Bufonidae*

**Subspecies: Eastern American Toad (*Anaxyrus americanus americanus*)**

**Updated 2025**



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**Description/Identification:** The American Toad is Wisconsin's only species of toad. American Toads (referred to hereafter as just "toads") are large, stout, short-bodied anurans with dry, thick, warty dorsal skin, and granular skin on the underside. Males and females are dimorphic in their sizes, with females reaching larger sizes than males. Male toads range from about 1.17 to about 3.34 inches in size, while females range from about 2.95 to 3.54 inches. Males also can be distinguished by their hardened and horn-like excrescences on the inner-digits of their fore-limbs, which are used for grasping onto the females during amplexus. Males also have more darkened throat or vocal sacs in addition. Also of interest and worth noting are some island or insular forms occurring in Wisconsin, namely Washington Island and in the Door County peninsula, which exhibit a form of gigantism. This is perhaps owing to toads in these areas needing to attain larger sizes during a shorter breeding period/season, the local resource availability, or perhaps other local environmental factors. Inside the mouth, American Toads, and other bufonids, unlike true ranid frogs, are toothless, lacking teeth on the upper maxilla and premaxillae. Also inside the front of the mouths of most anurans, American Toads included, is a projectile-like tongue made of extremely soft tissue, and which uses reverse adhesion and soft, viscoelastic properties coupled with non-Newtonian saliva.



Tadpole. © Carolina Biological Supply.

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There are almost always two enlarged pear or kidney-shaped paratoid glands located behind the eyes on the back of the head located posterior to the post-orbital crests (which may be connected). The tadpoles, upon hatching, range from about 8 to 10 mm., and are fat or round bodied, black in color, and have slender tail fins with low transparent tail fins. American Toad tadpoles may also have gold flecking as well. The ventral surface is often brassy or darkly mottled-translucent. The eyes and nostrils are close to the mid-dorsal line, and there are 2 upper, and 3 lower labial tooth rows. American Toad tadpoles are also schooling, making them distinguishable from any other Wisconsin tadpoles.

The fore, and especially hind limbs are short, making toads more well adapted to “walking” or “hopping” in short strides as opposed to longer leaps of most other frogs, and their toes are only partially or incompletely webbed. American Toads can vary considerably in color, ranging from black or blackish, red or reddish-brown, brown, light tan, yellow, olive or dark green, or other colors, and there is usually also a light colored mid-dorsal vertebral stripe down the back. The warts also have dark borders, but may be bordered in red, orange, or other more bright colors in newly metamorphosed toads. The underside is pale yellow or white with variable amounts of darker gray, black, or brown spotting or mottling, sometimes becoming more reddish, pinkish, or orangish on the groin. Toads may also have a thick, dark black or dark brown and light stripe on each side of the body from the shoulders about the forelimbs to the groin.

The nominate subspecies occurring in Wisconsin is the Eastern American Toad (*Anaxyrus americanus americanus*). American Toads may sometimes be confused with Fowler’s Toads (*Anaxyrus fowleri*); where hypothetical occurrence in Southeastern Wisconsin may be possible but yet to be documented. Fowler’s toads can be distinguished from American Toads by having 3 to 5 warts or “bumps” per spot (American Toads have only 1 or 2), a mostly pale and unpatterned ventral or underbelly with perhaps a few gray areas around the throat and chin in Fowlers (American Toads have a much more heavily spotted or mottled belly), and paratoid glands touching the post-orbital ridges in Fowlers, while American Toad’s paratoid glands are separate from the cranial crest or only connected by a weak spur.



© WDNR.

Link to Audio/Call: [Eastern American Toad \(\*Anaxyrus americanus americanus\*\) \(youtube.com\)](#)

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**Range and Distribution:** American Toads are very broadly distributed over Canada and the eastern United States, from Manitoba, Ontario, Quebec, and Nova Scotia in Canada, through the eastern U.S. to the extreme eastern tier of the Great Plains states to the west (the Dakotas, Kansas, and Nebraska, to Louisiana, Mississippi, and northern Alabama and Georgia, where they are replaced by the similar Southern Toad (*Anaxyrus terrestris*). In Wisconsin, toads can be found throughout the state, and are ubiquitous.

**Habitat:** American Toads are a highly adaptable amphibian, and can be found in nearly any type of terrestrial habitat as long as there is a temporary to permanent source of water or wetlands nearby for breeding. Toads may be found in prairies, marshes, oak savannahs and oak openings, semi-open coniferous and deciduous forests and woodlands, agricultural areas, office and industrial parks, and even in urbanized and suburban areas including parks, gardens, and backyards.

**Feeding and Diet:** American Toads are insectivorous, and will eat a wide variety of terrestrial or aquatic insects, insect larvae, small mollusks such as snails and slugs, arachnids, earthworms, and other arthropods or invertebrates. The tadpoles feed on algae, phytoplankton, and bottom detritus in their breeding habitats.

**Natural History and Calls:** American Toads are a very ubiquitous and adaptable amphibian, and are able to adapt and thrive in nearly any habitat or environment so long as they have access to some sort of temporary to permanent waterbody or wetland for breeding. They will breed in shallow margins of lakes or ponds, rainwater puddles, springs or spring fed wetlands, river backwaters, roadside ditches, marshes, livestock ponds, stormwater retention ponds, or from many other places. Male toads will call from an upright, standing position, with their vocal pouches extended. Their calls most often are a long, melodic trilling lasting about 30 seconds. Male toads also occasionally emit a lower pitched whirring or squeaking call, as a release call given towards other males when another male approaches too closely.



*Variability in Ventral/Belly Views.* © Kansas Herpetofaunal Atlas and Jeff LeClere.

Toads usually begin to emerge from their overwintering places under or within logs, under rocks, rock cavities and crevices, or from underground burrows by around mid to late April or early May, and may continue calling through mid-June. Toads are active from these times through October or November. Calling and breeding occurs both during the day and at night, and females arrive to the breeding ponds and wetlands later than males by about one to two weeks. Intensive breeding orgies of toads may then take place, and the males will court the females and grasp them in a state of amplexus on their backs.

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Female toads will then deposit long streams of gelatinous egg masses consisting of as many as 4,000 to 8,000 or more eggs, which hatch into tadpoles about 2 to 3 mm. in length from 2 to 8 days later. American Toad tadpoles are the only schooling tadpole frog or toad species in Wisconsin, which provide advantages for them for food utilization, temperature regulation, and to avoid predators. This schooling contributes to more rapid development, and also helps provide food sources for other tadpole species by stirring up the bottoms. American Toads will then fully metamorphosize into tiny toadlets and leave the water by late June to early July, where large numbers of toadlets may be found on sidewalks, in the grass, or moving across land.

After breeding, the adult toads leave the water and spend the rest of the summer and year feeding, foraging, and seeking shelter, where their activity is dependent on the moisture and temperatures. Toads are well-adapted for collecting and retaining water and moisture, which are what enables them to be so ubiquitous and to utilize nearly any type of habitat. At night later in the spring through summer and fall, toads can often be seen around outdoor lights and around sidewalks as they forage and hunt for insects attracted to these lights. During the day, they may seek shelter in small shallow cavities or burrows underneath rocks, logs, plants, or other cover objects or debris.

A toad's primary and first means of defense is to remain camouflaged or motionless to avoid being detected. If threatened further, toads may secrete a white, milky, distasteful and potentially toxic substance from their two enlarged paratoid glands described above. They will expose these paratoid glands towards a would-be predator by lowering their heads and facing the threat. They do not shoot or project this substance from their glands, but if touched, can irritate the mucous membranes of a predator which attempts to eat a toad. Some animals are able to successfully predate upon toads, however, through their different means of evolutionary or behavioral adaptations.

Natural predators of American Toads and their tadpoles can include a variety of large, carnivorous or predatory aquatic insects and/or insect larvae such as water bugs and water beetles, dragonfly larvae, and large spiders, as well as turtles, fish, other frogs and/or amphibian larvae, snakes, a wide array of birds including large wading birds (such as herons), and many different small to medium sized carnivorous mammals including opossums, skunks, raccoons, shrews, weasels, mink, foxes, and other mammals. Garter snakes and Eastern hognose snakes are especially well known and apt-toad eaters, among snakes.

**Conservation Status:** American Toads are listed as "Common", and are perhaps one of the most ubiquitous and widespread amphibians in Wisconsin. They are still regulated and protected along with all other of Wisconsin's herptiles, however under N.R. 16. American Toads are currently not protected or regulated federally. American Toads are currently IUCN Red-List Least Concern (LC).