



American Toad

North Carolina Wildlife Profiles



Jodie Owen

American Toad

(*Bufo americanus*)

The American toad is the largest toad species in North Carolina, and accounts for one of four true toad species native to the Tar Heel state. The other three true toad species are the southern toad, Fowler's toad and oak toad. Toads resemble frogs and together they make up the order Anura; however, only true toads belong to the family Bufonidae. Toads prefer uplands to the watery habitats of frogs, and they hop rather than leap like frogs. Additionally, toads have skins that tend to be drier and tougher than most frogs, allowing them to travel further away from wetlands.

Description

The American toad has a short, broad body and a rounded snout. It grows from 2 to 4 inches long, with adult females typically reaching larger sizes than adult males. Its back may be brown, gray, olive red or tan, and it often has a light stripe down the middle. The belly is pale, but the male's throat appears darker, especially during breeding season. Dark spots with one or two large warts dot the toad's back. The number of warts in each spot helps distinguish the American toad from the Fowler's toad, which looks similar but has three or more small warts in each spot.

History and Status

Toads have been prolific in North Carolina for centuries. State archeologists have unearthed toad bones from Native American burial sites dating as far back as the 1600s. The exact usage of toads back then is unknown, although it is believed that Indians and settlers in the Southeast may have used toxins from toad skins on arrow tips and other weapons. Populations of American toads remain relatively healthy, yet evidence of declines can be seen for all toad species in North Carolina. Habitat changes and increased highway construction have contributed to these declines. Learn more: ncwildlife.org/american-toad.

Habitats & Habits

The American toad prefers cool woodland and edge areas with plenty of moisture and insects. Gardens, meadows and fields with adequate cover make suitable habitats, too. The American toad primarily leads a terrestrial life but moves to ponds and pools to mate and lay eggs. This toad is not dependent solely on temporary (ephemeral) pools but can survive in permanent ponds with fish as long as hiding place exist in leaf litter and vegetation. This toad is the first true toad to breed in North Carolina with males moving toward the breeding ponds as early as January. They may travel as little as a few yards to as far as a mile to reach a pond. Once settled, males remain at the pond throughout the breeding season, which normally runs from February to

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Alicia Davis

Range and Distribution

American toads range throughout the Mountains and Piedmont of North Carolina, and can be found in fewer numbers in the Coastal Plain and Sandhills. They cover parts of Canada and the United States from south-east Manitoba to James Bay and Labrador; south through the Maritime Provinces, New England and the Appalachian Mountains; west from central Georgia to eastern Oklahoma and Kansas; and north to Wisconsin.

Range Map



American Toad Range Map

American Toad

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Habitats & Habits (continued)

early April. On land, American toads burrow in moist soils. In winter, they use the burrows to hibernate. The rest of the year, they emerge at night to forage for food.

Raccoons, weasels, minks and snakes, such as the Eastern hognose and Eastern garter snake, prey on the American toad. However many other predators avoid these toads because of the toxins found in the parotoid glands and skin. Squirts of water stored in the toad's bladder serve as another effective deterrent to hungry predators.

Human Interactions

Farmers and gardeners, especially, welcome American toads because of their ravenous appetite for insects. Woodland and edge habitat is becoming more scarce with increased development. Insecticides and water pollution also contribute to the decline of American toads; however, increased highway and road construction has led to the most mortalities in recent years. In search of food, toads seem drawn to open spaces and bright lights on the road.

American toads can be monitored fairly easily in a variety of ways. One way is through frog call monitoring. The North Carolina Calling Amphibian Survey Program attempts to do just that by corralling data collected by volunteers across the state that monitor specific frog call routes.

For More Information/References

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Terres, John K. ed. *The Audubon Society Field Guide to North American Reptiles and Amphibians* (New York, N.Y.: Alfred A. Knopf, 1992).

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Wild Facts

Classification

Class: Amphibia

Order: Anura

Family: Bufonidae

Average Size

Length: 2 to 4 inches; females are usually bigger than males.

Food

Primarily insects and other invertebrates, occasionally small vertebrates.

Breeding/Young

Mates February through April. Males stay throughout the season, mating with several females, who lay 4,000 to 7,000 eggs in two long strips. In less than a week the eggs hatch into tadpoles. Tadpoles metamorphose into toads less than half an inch long in about 2 months. Juvenile toads migrate to land where they remain until returning to ponds to breed as adults. Male American toads reach sexual maturity in about 2 years; females, 3 years.

Life Expectancy

5 to 7 years in the wild.



Dark spots with one or two large warts dot the American toad's back, which help distinguish it from the Fowler's toad, which looks similar but has three or more small warts in each spot. (Photo: Alicia Davis)

Credits

Originally written by Sarah Friday; updated by Jeff Hall, NCWRC, 2018.