



## AMPHIBIANS

Status: Common Native

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# AMERICAN TOAD

(*Bufo americanus*)

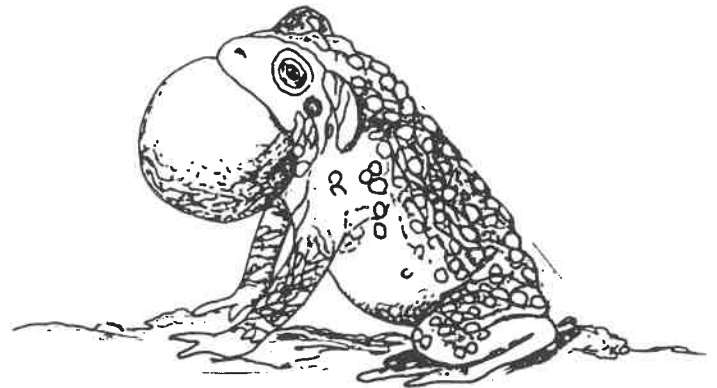
## Description

Many people are uncertain about how to tell a toad and a frog apart. Toads usually have a dry, thick, bumpy skin and a squat body with shorter legs. They are more likely to walk or hop and tend to live away from wetlands. Frogs have moist, smooth skin and a slim body with longer legs. Frogs are more likely to leap or jump and usually live near water.

American toads are medium sized toads that are sometimes called hop-toads or hoppy toads. The Lakota name for toads is "tapiha." Measured from nose to buttocks, without including the legs, American toads average 2 to 3.5 inches (5 - 8.9 cm) in length, with a record of 4.4 inches (11 cm). Adult females are often larger than the males. Toadlets as small as 3/8 inch (10 mm) can be found on land.

The background coloring of American toads is frequently a dull brown, but can range from yellowish to olive brown to dark gray with patches of lighter colors. The underside is usually paler with dark spots. Toad coloring can vary within the same species from location to location and even an individual toad's coloring can change in response to stress, temperature, and humidity.

American toads have large, dark spots on their backs, each containing 1 or 2 large "warts." The "warts" are not true warts, but merely bumpy skin glands. Toads

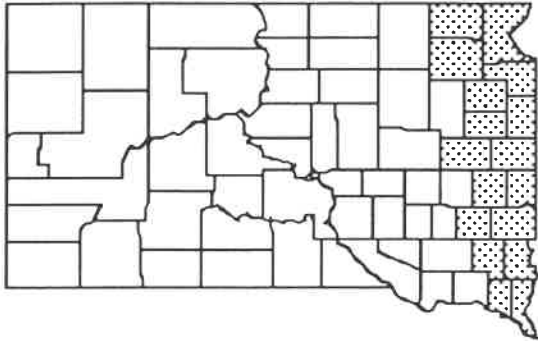


also have enlarged, kidney-shaped glands behind their eyes. The skin contains many glands that produce a mild poison to protect toads from predators. When a predator tries to eat a toad, it gets a mouthful of poison, which usually keeps it from attempting to eat toads again. (Although humans do not get warts from touching toads, the mild poisons from the skin glands can be irritating. Hands should always be washed after handling toads, and fingers kept away from mouths and eyes.)

## Distribution

South Dakota is at the far western limit of the range of the American toad and they are only found in the far eastern counties of this state. Throughout their range American toads can be found

almost anywhere, from farm yards to city lawns, from cultivated fields to meadows and forests.



## Natural History

American toads hunt insects, snails, earthworms, and other small invertebrates at night. During the daylight hours they stay cool and moist beneath flat stones, logs, wood piles, or other cover. *Amphibians* are cold-blooded and they survive the cold winter by *hibernating*. When the weather gets cold, toads burrow into the ground up to 3 feet deep. With the cold, their bodies fall into a *torpor* where they remain until they warm up again in the spring. As the weather warms and insects become active their bodies will warm and they will emerge from hibernation.

With the warm weather of spring, male American toads travel to water. When the air temperature and their body temperatures are just right, the males will begin calling to attract females and advertise their position to other males. During the call, the round, mottled gray vocal sacs of the male are greatly inflated and vibrate rapidly. The male choruses are continued day and night during the height of the breeding season. American toads have a prolonged call that is pleasingly musical. It sounds like whistling and a deep in the throat, bu-rr-r-r-r, all produced at the same time. The female toads make their way to the singing males and breeding takes place.

Toad eggs are laid in water in long strings of up to 15,000 eggs. If stretched out, these strings may reach 20 to 66 feet (6-20 m) in length. The tiny individual eggs hatch in 3 to 12 days, depending upon the water temperature. At warmer temperatures, development within the egg occurs more rapidly. The small, almost black *tadpoles* swim in schools and feed voraciously on plants and debris for 40 to 70 days, reaching lengths of almost 1/2 inch (1.2 cm), about the width of a little finger. The *aquatic tadpoles* grow legs, absorb the tail, change from gill-breathing to lung-breathing and from *herbivore* to *carnivore*. By summertime, toadlets can be found on land. After 2 to 3 years, the toads are ready to reproduce.

## Conservation Management

Toads are an important part of the natural food chain. They are voracious eaters of insects and other small invertebrates and, especially as *tadpoles*, they are important in the diet of many animals. *Amphibians* need wetlands to reproduce. If permanent or temporary wetland habitat is damaged, drained or polluted, *amphibians* cannot easily locate and travel to a new pond. To help preserve *amphibians*, wetland areas must be preserved and protected. Temporary wetlands can be important *tadpole* habitats because there aren't fish to prey on them. In the spring adult toads will be returning to ponds as have generations before them, but now there may be roads or buildings across their routes. Children can be taught to recognize that these animals are only trying to return to their breeding ponds to produce another generation.

Toads eat many insects, grubs and worms that can ruin vegetable crops. Sheltered areas or toad houses and a pool of water in gardens can encourage toads to move in. If your pool is deep enough (over 2 feet - 61 cm- or so) then toads may even call and breed there.

## Glossary

**Amphibian** - a cold-blooded, smooth-skinned vertebrate of the class Amphibia, such as a frog or salamander, that characteristically hatches as an aquatic larva with gills.

**Aquatic** - referring to fresh water.

**Carnivore** - an animal that eats other animals.

**Herbivore** - an animal that eats plant.

**Hibernate** - to be in a state of dormancy during the winter in which metabolic activity and heart rate are reduced.

**Tadpole** - the immature, aquatic stage of amphibians. Hatching from the egg, the tadpole is gill-breathing, legless, and propels itself by means of a tail. Also called polliwog.

**Torpor** - dormant, inactive state with reduced metabolism and heart rate.

## References

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- Parker, Nancy W. Frogs, Toads, Lizards and Salamanders. New York: Greenwillow Books. 1990. Reading Rainbow Book.

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