



SOUTHERN TOAD (*BUFO [ANAXYRUS] TERRESTRIS*) OBSERVATION GUIDE FOR HERPSCAPERS

by Ashley LaVere

INTRODUCTION:

Think back to the first warm nights of the year or just after a summer rainstorm. The hum and whistle that filled the night belonged to the Southern toad. Southern toads are found in terrestrial habitats of the south, extending as far south as Florida, as far north as Virginia, and as far west as Louisiana. They are probably the toad you most associate with finding on the trails by your house after a rain, jumping from a clump of grass on the side of a pond, or even making a personal abode in your flower pot on your back porch! Southern toads are found in a variety of habitats from agricultural fields and woodlands, to residential area. As long as there is loose, moist soil in which they can dig burrows and a nearby water source, they are happy!

DESCRIPTION

Southern toads range from 1.5 to 3 inches in body length making them easier to spot, but don't be fooled, with increased size comes increased jump distance! They sport the characteristic bumpy skin common to toads, with species specific elongated, enlarged parotid glands behind each eye which are used to produce a milky white substance that is secreted to deter predation. Although variable, they range in color from brown or gray-black, to brick red with a whitish-grey belly that becomes speckled towards the chest. Dark spots or blotches run along their backs and sides, normally accompanied by one or more warts. Though covered in warts themselves, they selfishly do not share those with others, so there is no reason to worry about getting warts from handling a toad! Males are much smaller than females and during the breeding season they will have a dark throat that is an adaptation associated with calling for females.



John Byrd

Check out the elongated, enlarged parotid gland behind the eye!

BEHAVIOR

Southern toads breed from February through October, during which times males will congregate at a water source, often times a wetland, pond or ephemeral pool, and chorus to attract females. Females, drawn to the



music, will select males to mate with and lay 2500-4000 eggs in long gelatinous strands that are externally fertilized by the male. After about 2-4 days of floating among the vegetation, eggs hatch into tadpoles, which will make the leap onto land 30-55 days after hatching, at a size of about half an inch. These toadlets can be seen by the hundreds around wetlands and pools, seeking out a good spot to rest and begin their adult lives. They won't return to the breeding pond again until they reach sexual maturity at 2-3 years. During the time they are away from the breeding grounds, they spend their time in upland terrestrial habitats where they dig burrows in the loose sandy soils, and venture out at night to feed on invertebrates such as ants, beetles, crickets, and snails. While out and about during the night they may encounter predators, such as the hognose snake, whom are looking for their own meal. Southern toads will often rely on logs or leaf litter to hide from these hungry lurkers. When concealment isn't enough and they are caught by a predator, they will inflate their lungs and extend their hind legs to appear too large to swallow. In last resort, they can use toxic secretions produced by the parotid gland to make them distasteful to predators. As you encounter these toads in your backyard, remember that if handled, they may feel threatened and secrete that toxin that can cause mild skin irritation. It is important to be sure wash your hands after handling them!



Here an adult sits among strands of eggs wrapped through the vegetation.

LEARNING MORE:

Find out more about spring peepers using these books and websites to help guide your curiosities!

Books:

- 1) Peterson Field Guides – Reptiles and Amphibians – Eastern/Central North America, (1998) by Roger Conant/Joseph T. Collins. This book should always be within reach. There is also a Western Peterson Field Guide for reptiles and amphibians.
- 2) The Frogs and Toads of North America: A comprehensive Guide to Their Identification, Behavior, and Calls, (2009) by Lang Elliot, Carl Gerhardt, and Carlos Davidson. This book provides information on identification and behavior of frogs and toads across North America and comes with a CD to help learn their calls.
- 3) Amphibians and Reptiles of Georgia, (2008) edited by John B. Jensen, Carlos D. Camp, Whit gibbons, and Matt J. Elliott. This comprehensive work has an excellent overview on amphibian and reptile conservation and a thorough reference section for further study.

Websites:

- 1) <http://srelherp.uga.edu/herps.htm> -This site takes you to the Savanna River Ecology Lab. Here you will find outstanding photos and information on most of the frogs found in the Southeast.
- 2) <https://herpsofnc.org/> - This site takes you to the Amphibians and Reptiles of North Carolina website where they provide descriptions of herpetofauna found throughout the state, which also occur in many other southeastern states.
- 3) <https://www.nwf.org/Educational-Resources/Wildlife-Guide/Amphibians> - This website developed by The National Wildlife Federation provides descriptions of a variety of amphibians throughout the U.S.

