

# WILDLIFE IN CONNECTICUT

## ENDANGERED AND THREATENED SPECIES SERIES

### EASTERN SPADEFOOT TOAD

*Scaphiopus holbrookii*

**ENDANGERED**



**Habitat:** Found in arid to semi-arid areas, such as fields, farmland, dunes and woodlands with sandy or loose soils. Breed in temporary bodies of water (e.g., vernal pools), flooded fields and forested wetlands.

**Weight:** Unknown.

**Length:** 1.75-3.25 inches.

**Life Expectancy:** At least 5 years of age.

**Food:** Flies, crickets, caterpillars, moths, spiders, centipedes, millipedes, earthworms and snails. Tadpoles initially feed on plankton (microscopic plants) for a few days. The tadpoles then become carnivorous and sometimes even cannibalistic.

**Status:** State endangered.

**Identification:** Eastern spadefoot toads are plump, with smooth skin and scattered, tiny warts. They range in color from olive to brown to black. Two irregular yellow stripes on the back may form a vase-shaped pattern or resemble the outline of a misshapen hour-glass. Unlike most frogs and toads in North America, which have round or horizontal pupils, spadefoot toads have almost vertical pupils. They can be distinguished from other toads by a black, sharp-edged, spade-like projection on the underside of each foot.

**Range:** The eastern spadefoot toad occurs from southern New England to south Florida, west to south-eastern Missouri, northeastern Arkansas and eastern Louisiana.

**Reproduction:** Spadefoot toads are "explosive breeders," appearing suddenly, sometimes in great numbers, after heavy rains that occur during the warm months of the year. This is usually a one-night phenomenon, although the toads can breed several times at the same site from April to July. There is no regular, annual migration to the breeding pools. Instead, the event is triggered by a quick drop in barometric pressure, more than 2 inches of rainfall and darkness.

Spadefoot eggs are laid underwater and deposited in strings, which are easily broken. Eggs are typically attached to a twig, grass blade, fern leaf or some other type of vegetation. The male fertilizes the small, dark eggs as the female lays them. A female may lay up to

2,500 eggs, which hatch in 1 to 7 days. The tadpoles grow quickly, transforming into toads in 16 to 20 days for late-season broods and 48 to 63 days for early-season broods.

**History in Connecticut:** Eastern spadefoot toads are considered rare in Connecticut. Only 16 sightings of spadefoots were reported from 1811 to 1936 in southern New England. The species was only seen 8 times at various locations throughout the state from 1970 to 1989.

**Reason for Decline:** The population of spadefoot toads in Connecticut is threatened by the loss of habitat due to development and urbanization. The toads are also susceptible to high mortality when breeding pools dry up before the tadpoles can grow into toads (metamorphose).

**Interesting Facts:** The eastern spadefoot toad is probably the rarest and most secretive amphibian found in Connecticut. It has been the subject of myths claiming that it remains buried for years underground in shallow burrows before surfacing to breed. Spadefoots do remain underground in shallow burrows for weeks during dry periods. Being nocturnal and usually subterranean (underground), this creature is very difficult to find. On damp summer nights, spadefoots often emerge from their burrows. When rainfall is extensive, their call, a short explosive "wank," like the call of a crow, may be heard.

The spade-like projections on the hind feet of the spadefoot enable it to dig easily into the soil. By rocking back and forth and rapidly digging with its hind legs, the toad can vanish quickly below the surface of loose soil.

During periods of extended drought, eastern spadefoot toads can lie dormant. They curl into a tight ball and excrete a fluid that hardens the soil around them, forming a compact chamber to retain any available moisture. When heavy rains soak the soil, the toads uncurl and resume their normal activities.

When handling spadefoot toads, many people experience strong allergic reactions to secretions from the toads' skin glands. Reactions may include violent sneezing, a runny nose and watery eyes. To prevent an allergic reaction, anyone who handles a spadefoot toad should wash their hands thoroughly with soap and water, keeping their hands away from their face and eyes until they do so.

**Protective Legislation:** *State* - Connecticut General Statutes Sec. 26-311.

**What You Can Do:** The protection of vernal pools (pools of water that are present during the spring, but may dry up during the summer) and other temporary water bodies will help many of Connecticut's amphibian species. Pools located near sandy soils or dry, open areas are of particular importance to spadefoot toads. Learn to identify these special habitats so they can be noted and protected.

## CONNECTICUT RANGE

