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common name	Western Spadefoot
scientific names	<i>Spea hammondi</i>
phylum	Chordata
class	Amphibia
order	Anura
family	Pelobatidae
habitat	vernal pool grasslands and some cattle ponds
size	4 to 6 cm for adults

description The Western Spadefoot is small and squat. Its back is olive-brown or gray with dark blotches and little red bumps. The skin on its back is mostly smooth, unlike that of the warty Western Toad. The adult Spadefoot has a white belly.

It has eyes like a cat - the pupils are vertical, black, and almond-shaped. The Spadefoot gets its name from the tiny black shovels (spades) on its hind feet. It uses these shovels to dig burrows in the ground.

fun facts The male Spadefoot makes a sound like a tiny snore to call females to the breeding pool. On a quiet, windless night a group of male Spadefoots can be heard almost a mile away. The females are usually silent.

When injured or handled roughly, the Spadefoot gives off a smell like roasted peanuts or garlic, which can cause sneezing.

life cycle Spadefoots gather at vernal pools to breed in early spring, after winter rains fill the pools. Females lay several hundred eggs. The eggs are covered in clear jelly and are laid in small clusters of thirty eggs or less. The egg clusters are usually laid on plants, just below the surface of the water. The eggs hatch in 3 or 4 days if the water is warm. If the water is cooler, they eggs can take a week to hatch.

The newly hatched tadpoles stay close to the egg cluster for the first few days. It takes them 5 to 6 weeks to grow about two inches. After about 8 weeks the tadpoles change into young Spadefoots. This change is called [metamorphosis](#). During metamorphosis a Spadefoot cannot eat. After metamorphosis, a young

Spadefoot is much smaller than the tadpole from which it came. A Spadefoot takes about two years to become an adult. An adult can live for several years.

ecology

Western Spadefoots are only active on a few rainy nights between October and March. On these nights, they leave their burrows to travel to breeding pools and to hunt. Adults eat mostly insects, especially beetles, moths, and moth larvae (caterpillars). Adults do not have many predators because their skin tastes nasty. Small [mammals](#) sometimes eat Spadefoots that have been killed on roads, but they leave the skin untouched. Bullfrogs, on the other hand, have been known to swallow adult Spadefoots whole!

Unlike the adults, Spadefoot tadpoles are not protected by skin poison. The tadpoles are eaten by Aquatic Beetle larvae and other [aquatic insect larvae](#), California Tiger Salamander larvae, [wading birds](#) and ducks. Spadefoot tadpoles are omnivores, which means they eat both plants and animals. They eat detritus, Bacteria, Protozoa, small [crustaceans](#) and sometimes they even eat each other!

conservation

Spadefoots are very picky about their habitat. They only live in certain vernal pools and in some drinking ponds used by cattle. Scientists do not understand why they breed in some pools and not in others. When their breeding pools are destroyed, they often have nowhere else to go. To protect Spadefoots for the future, we will have to protect the vernal pool grasslands where they live today.

investigate

Why do you think the biggest Western Spadefoots come from pools where California Tiger Salamander larvae are present? Talk to the California Tiger Salamander specialist in your class to work on your answer.

What's in a name?

Spea, the genus of the Western Spadefoot, means "cave", which refers to its habit of spending its adult life in burrows.