

# NATURE DETECTIVES

Summer 2013



## Looking for Little Lizards

More lizards live on our earth than snakes or turtles or any other type of reptile. So it is not surprising some lizards dwell in Boulder County. Our lizards are little, even the adults are just a few inches long. They have small teeth, no venom and are harmless to people. Our lizards are shy and often dart quickly out of sight. Motionless, their great camouflage colors allow them to hide in plain view. Catching a glimpse of one is exciting.

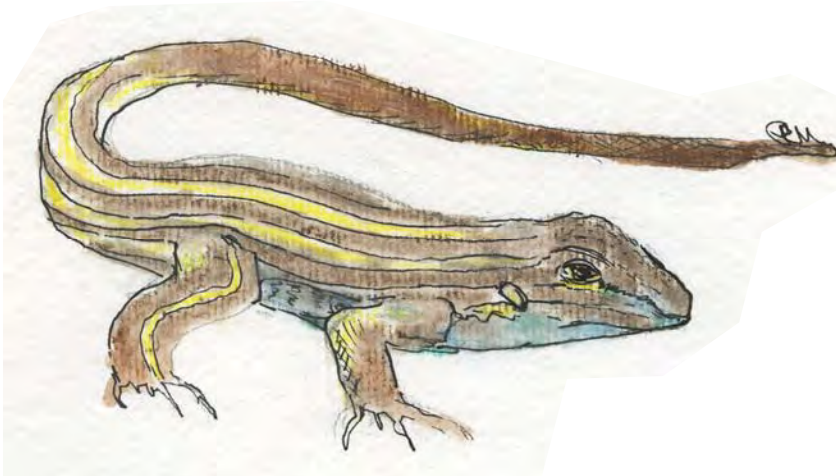
Pull Out and Save

Lizards try to look tough by doing push-ups. They look like tiny reptile physical fitness buffs. In fact the word for small lizard in Spanish, *lagartija*, is also a word for push-up, the kind you might do in PE class. It would be funny if we started calling the push-up exercise a "lizard." How many "lizards" can you do?

Lizard skin is dry and scaly. The scales are made of keratin, the same as your fingernails. Scales help protect lizards from cuts and scratches, and scales help lizards keep moisture inside their bodies when it is hot and dry outside.

## Basking in the Sun

Lizards are ectotherms, which means they can't make their own body heat. They lie in the sun to warm up each morning. They prefer sunny weather that isn't windy or too cold or too hot. Lizards are active during the day when temperatures are just right. If they get hot or cold, they have to seek shelter or they die. They hide under rocks or leaves or underground. They like rodent burrows for safe refuge beneath the ground during their winter hibernation.



## Picture These

Common names of lizards are often descriptive.

**Short-horned lizard**, **six-lined racerunner** and **red-lipped prairie lizard** are three different kinds of lizards living in Boulder County.

You could probably picture the lizards in your mind just by reading their names.



## Lizards on the Lookout

Lizards are hunters with excellent eyesight. Unlike snakes, lizards have eyelids and can blink. Like snakes, they “smell” with their tongues. They flick their tongues to pick up chemical scent molecules in the air. They put their tongues in a special place on the roof of their mouths to decode the smells.

Lizards hear through ear slits on the sides of their heads.

Smelling and hearing and especially seeing well

help them catch their food and escape their predators. Hawks, falcons, owls, kestrels, shrikes, snakes and cats will hunt lizards.

## Weird Defenses

Racerunners and prairie lizards have the ability to drop their tails if they are grabbed. The dropped tail end twitches and may distract a predator, giving the lizard a chance to escape. Their tail tissues and bones are built to divide, and special muscles shut off bleeding. A stumpy, boneless tail will slowly grow back.

Why do you think newly hatched baby racerunners have bright blue tails?!

Short-horned lizards don't drop their tails, but they have an odd ability to squirt blood from around their eyes when they feel threatened. The blood, which can spurt 3 or more feet, seems especially good at causing canines like foxes and coyotes to feel burning in their noses and mouths.

## Growing and Surviving

Lizard skin can stretch a bit, but it can't actually grow so lizards have to shed their skin periodically as they get bigger. The bright new skin hardens as it dries, but it is loose to give the lizard a little growing room.

Baby lizards are the most likely to be snatched by predators, but all lizards face human-caused dangers. Pesticides, pollution and getting run over by vehicles take their toll. Loss of lizard habitat to buildings and farm fields is another challenge.

Lizards in our area live for around four or five years if they stay out of danger.

## Habitats and Seasons of Lizard Activity

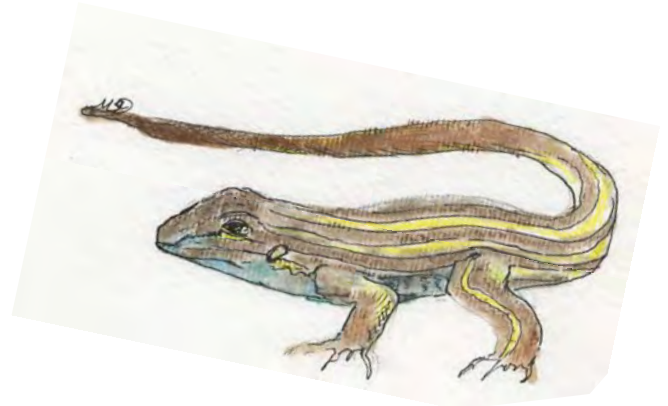
Boulder County lizards hang out where there is some space between plants and plenty of sunshine. They can be found in the grasslands and in the foothills shrublands and in open montane forests of ponderosa pine and Douglas fir.

Lizards are active as soon as temperatures warm to their liking in spring. Young lizards are the first to emerge from their underground winter hiding places.

In the fall, the youngest lizards are last to hibernate and will wait as late as October or even November before going below ground.

## Six Lined Racerunner

The ability to run at almost 20 miles per hour gives this skinny lizard its name. It swings its long whip-like tail for balance as it zips around on the ground. It dives under shrubs and leaf litter to stalk its prey. It hunts for crickets, grasshoppers, beetles, ants, spiders, butterflies, moths and caterpillars.



The lizards' camouflage colors and lines on their bumpy, scaled backs make it hard for snakes, hawks or other predators to keep a focus on them as they dart into hiding. Many racerunners have pale, bright greenish upper bodies that mimic the colors of yucca or other plants where they might rest out of the sun. A mature male shows off his pale blue belly and throat as he performs push-ups. Push-ups can be slow or quick with different length pauses. It is a complex communication to warn off competitors and to attract mates.

## Red-lipped Prairie Lizard



Actually, these lizards are orange or yellow on their faces and chins. The males have the brightest colors, especially around mid-May. Females display lighter orange or yellow colors then.

More rare are prairie lizards with lots of black color and no orange/yellow. All three variations pass the colors on to their offspring. When the orange guys do their push-ups, the other male prairie lizards back off. Push-ups also show off blue coloring normally hidden. Female lizards are attracted to the males with the brightest colors.

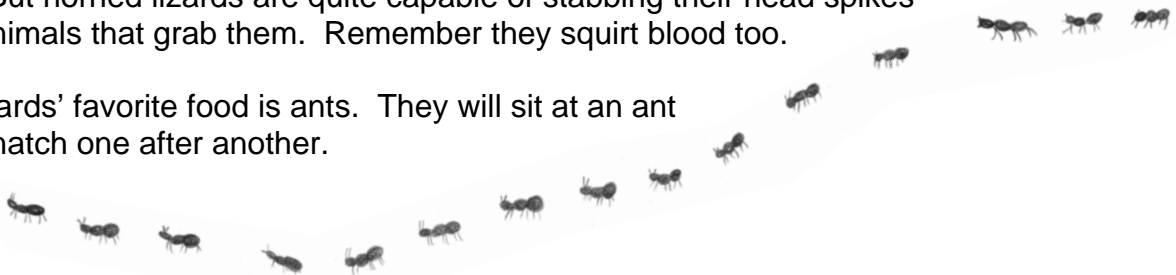


Prairie lizards have spiny scales, prickly like some pinecones. Their dull colored bodies are lightly striped with darker cross bands. Their prey can include grasshoppers, spiders, flies, beetles, larvae and ticks.

## Short-horned Lizard

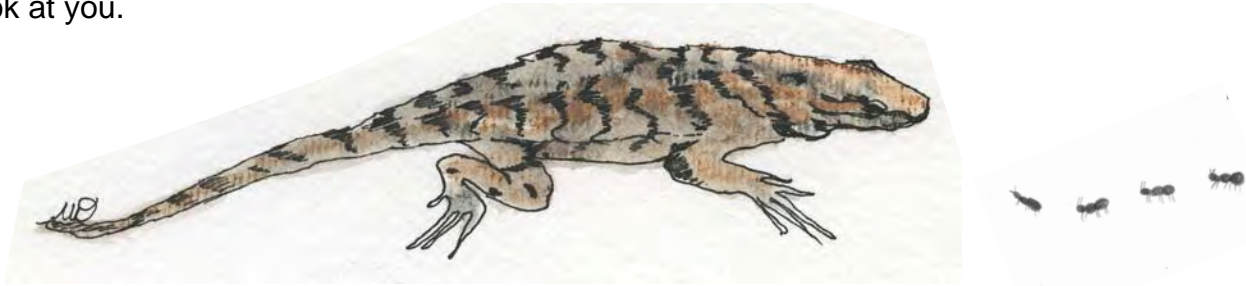
A startled horned lizard will puff out its round, flat body to make its many sharp spiny scales and pointy spikes stand out. Short-horned lizards are small. The babies are about the size of a nickel. But horned lizards are quite capable of stabbing their head spikes into any animals that grab them. Remember they squirt blood too.

Horned lizards' favorite food is ants. They will sit at an ant trail and snatch one after another.



## Learning to Look for Lizards

Since lizard colors often match their surroundings, the key to seeing lizards is learning to spot lizard shapes on rocks and trails and roadways. Approach slowly and hold still if they look at you.



**Warning:** Our wild lizards might seem like they would be fun pets but it is illegal to keep them. It is also unkind because giving them the habitat they need is next to impossible. They won't eat. They get sick. They suffer and die. If you are patient or lucky enough to find any lizards, enjoy seeing them in their natural habitat where they belong.

## Lizard Science

Many more kinds of lizards and bigger lizards live closer to the equator where the climate is warmer. We have fewer lizards because our climate is cool by comparison. Our lizards are small because small bodies warm up more quickly in the sun.

See if you can design an experiment with water balloons to test how size makes a difference in temperature. Fill one balloon with a little water and another balloon with more water and put both balloons in the sun. Keep feeling the balloons to see if one water balloon warms faster than the other.

Some lizards are darker colors than others and seem to be out earlier and later in the day and on cloudier days than lighter colored lizards. To test how color works, plan a different experiment with two sheets of construction paper, one black piece and one white piece. Lay the papers in the sun and put a hand under each piece of paper. Does one hand feel warmer than your other hand?

## Tongue Twister

How fast can you say it? **Loopy lizards lying lazily aloft a little line of logs**

