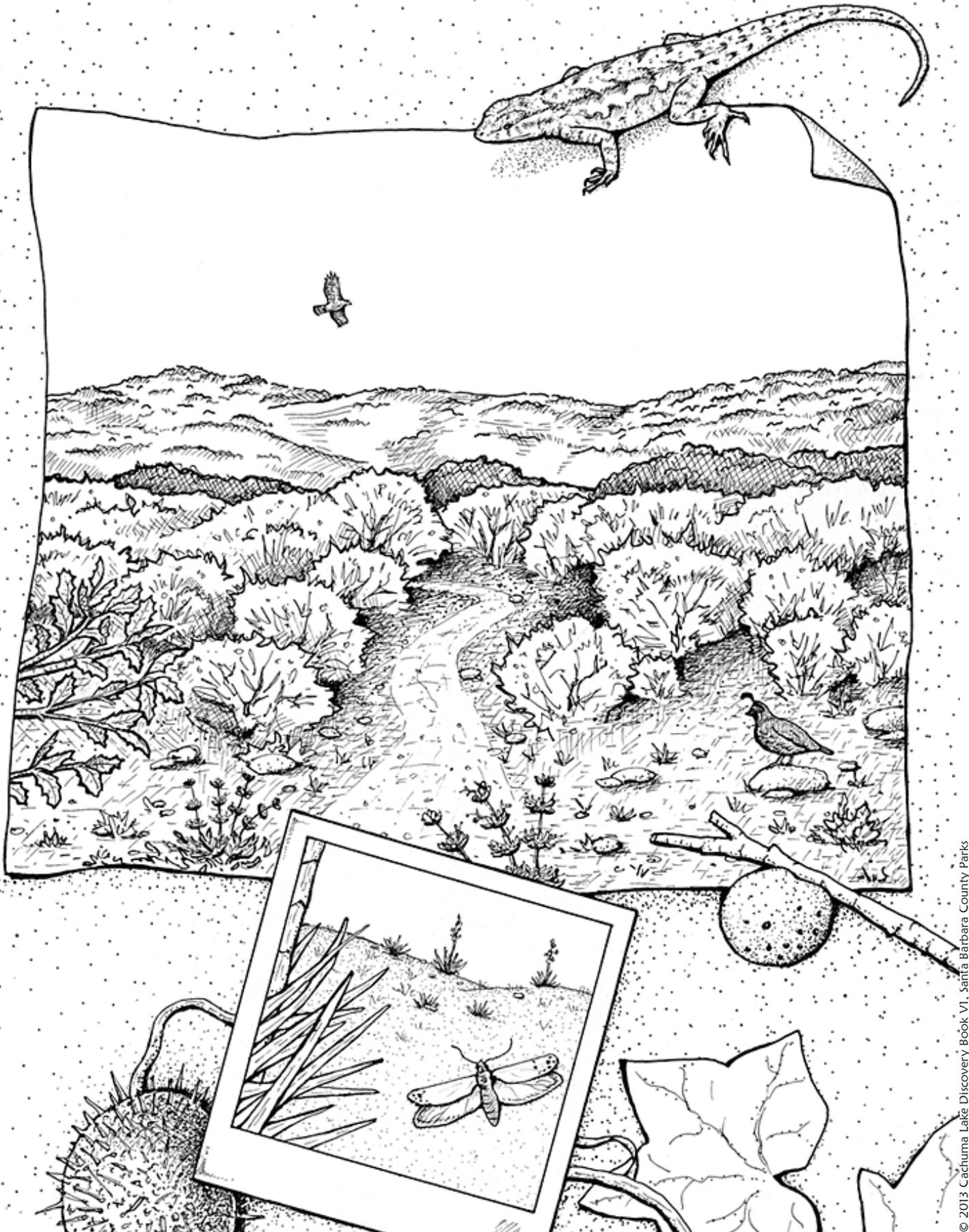


# Chaparral Habitat



# Chaparral Habitat

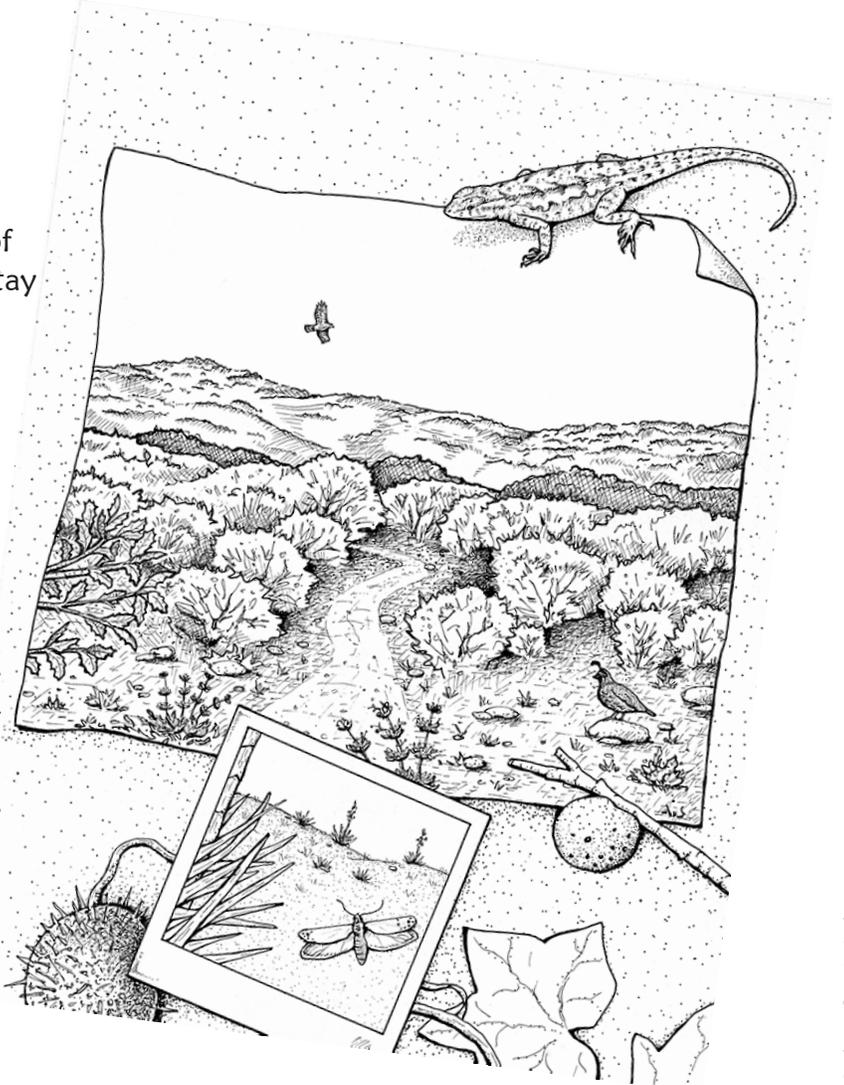
Chaparral habitat is crowded with bushes. They grow very close together. You can only walk through easily if you are as small as a California quail or a brush rabbit.

The chaparral habitat is often very dry.

Plants in chaparral are from 3 to 15 feet tall and often have deep roots. Many of them have small evergreen leaves that stay on the plant all year.

Chaparral provides important food and shelter for wildlife.

California Quail nest on the ground in chaparral and eat seeds and insects. Brush rabbits eat plants out in the open, and dart into the brush to hide. Western fence lizards hunt for insects within the shrubs.



Chaparral plants dress for success.

Chaparral plants have adaptations to fire and hot, dry summers. To get along in hot, dry weather, plants have small leaves and some shrubs have light-colored leaves to help reflect the sun's heat. You do the same thing when you wear a white T-shirt in the hot sun.

Chaparral subjects  
in this book:

- California quail
- Gall wasps & oak apples
- Purple sage
- Scrub oak
- Western fence lizard

# Habitat: Chaparral

## Quail Facts



- Party Hat! Quail wear a feather on the top of their heads, like a hat.
- Overall: Dull colored ground-dwelling birds, found in dense brush, often in large groups feeding in open areas.
- Age: Up to 4 years.
- Size: Wingspan, 14 inches; length, 10 inches.
- Diet: Seeds, berries, insects.
- Nest: Hidden among plants on the ground and lined with grass.
- Clutch: 10 to 16 cream-colored or brown-spotted eggs.
- Voice: “Chi-ca-go! Chi-ca-go!”
- Top Speed: 12 miles per hour.

## California Quail

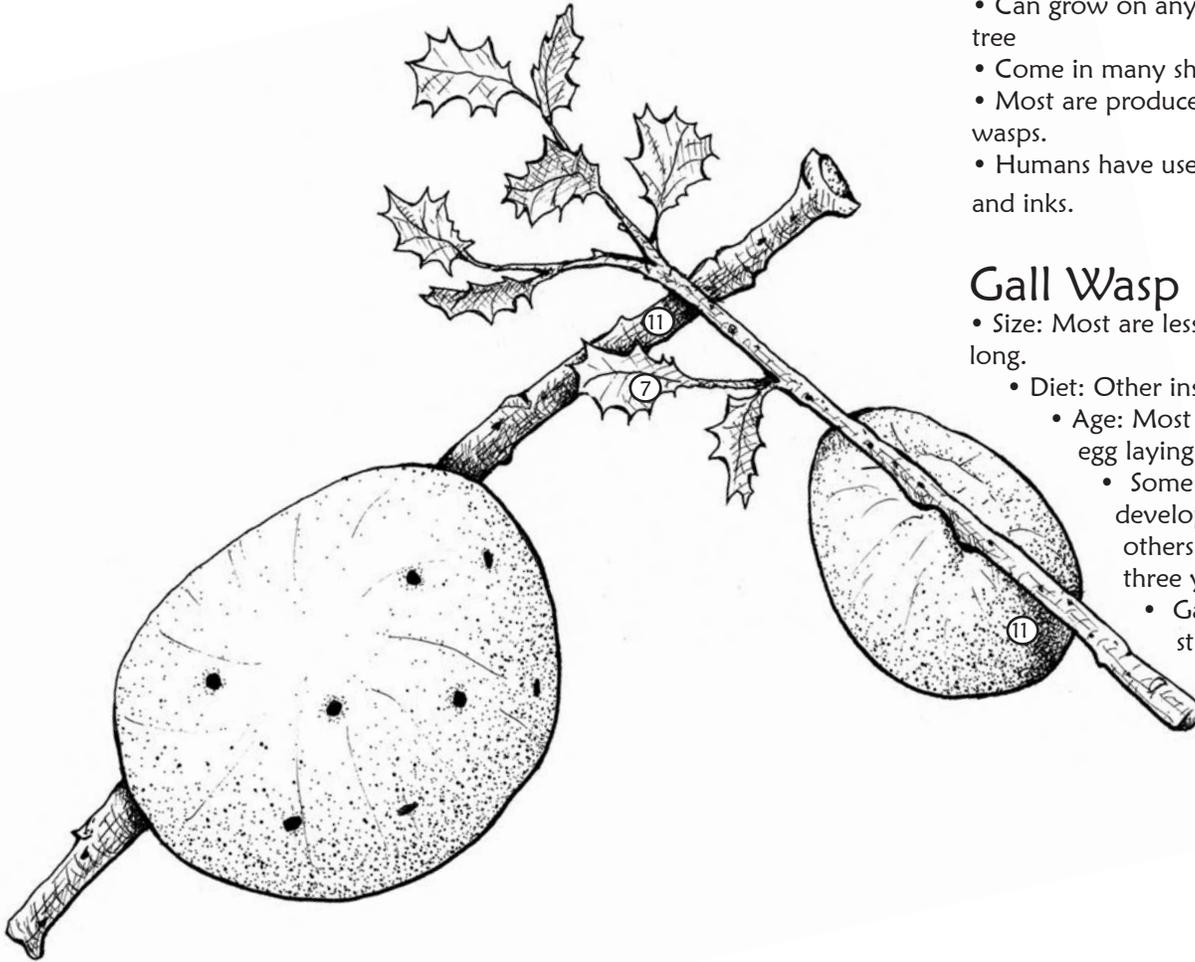
*Callipepla californica*

The California Quail is the California State Bird. You might hear a covey of quail chattering in the brush if you walk quietly on the trails at Cachuma Lake.

A covey of quail (a group of quail) can have 10 to 200 birds. In fall and winter, they feed together twice a day—in the morning and evening. One bird is the sentinel, and watches over the covey from a tree branch during feeding time. If a predator is detected, the sentinel gives a warning call and the quail scatter in all directions. Another call is given when it is safe to re-group. Quail rarely fly unless they are in danger, and they stay low to the ground during flight. Quail “mate for life.” In spring, male and female quail form pairs to nest and to raise their young. Each pair will join together every spring for the rest of their lives.

Colors: 1/Black, 2/White, 3/Gray, 4/Red, 5/Orange, 6/Yellow, 7/Green, 8/Blue, 9/Pink, 10/Purple, 11/Brown

# Habitat: Chaparral



## Oak Gall Facts

- Can grow on any part of the oak tree
- Come in many shapes and sizes
- Most are produced by tiny wasps.
- Humans have used galls in fuels and inks.

## Gall Wasp Facts

- Size: Most are less than 1/4 inch long.
- Diet: Other insects
- Age: Most adults die after egg laying.
- Some oak gall wasps develop in one year; others take two to three years.
- Gall wasps don't sting.

# Oak Galls & Gall Wasps

Family *Cynipidae*, several species

An oak gall is made when a tiny oak gall wasp lays its eggs on an oak tree twig. When the egg hatches, a tiny, white, worm-like grub comes out. The tree grows a ball around the grub. The ball is called an 'oak gall'.

Most gall wasp eggs are laid in the spring. Sometime between spring and the next winter, the grubs become adult wasps. Typically the adult gall wasps emerge from their galls in the winter. Small holes in the gall show that the adult wasps have chewed their way out of the gall. Gall wasps depend on oak trees for a place to lay their eggs and for galls to protect their young grubs. Oak gall wasps receive food and shelter from the oak tree host, but do not kill it. Without the oaks, the oak gall wasps would not have a safe place to lay their eggs.

# Habitat: Chaparral

## Sage Facts

- Overall: Purple sage forms thick bushes 3-5 feet tall.

- Purple sage leaf: 2-3 inches long, 1 inch wide; shaped like an arrowhead, light gray-green, with a soft and wrinkled surface

- Purple sage flower: Small, light purple; grouped in rings along the stem.



## Purple Sage

*Salvia leucophylla*

Purple sage is a thick bush covered with gray leaves. Purple sage is just one kind of sage. Sage plants have nice, strong smells that can fill a room. Many people use sage in ceremonies.

Plants have “families” just as animals do. Purple sage is in the mint family. Have you heard of peppermint? It’s in the same family. Many plants in this family have chemicals in their leaves that have a strong smell. If you pinch a sage leaf, you will notice the smell immediately. Humans have used sages for many purposes. Some sages are used in cooking, such as in stuffing for turkey dinner. White sage can be used to freshen the air. Native Americans used sages to hide their “human” smell when they hunted. The strong-smelling chemicals in sage leaves make them burn easily. This helps clean up the chaparral when there are natural fires.

Habitat:  
Chaparral



## Scrub Oak Facts

- Overall: Dense bushes, 6 to 15 feet tall
- Leaves: 3/4 to 1 inch long, dark green on top, gray green on bottom, thick with spine tips
- Evergreen: Has green leaves all year
- Seeds: Acorn nuts, 1/2 to 1 inch long, egg-shaped, with a bumpy cap
- Scrub Oaks have oak galls that look like fuzzy pink slippers or tiny oranges with red spots.



## Scrub Oak

*Quercus berberidifolia*

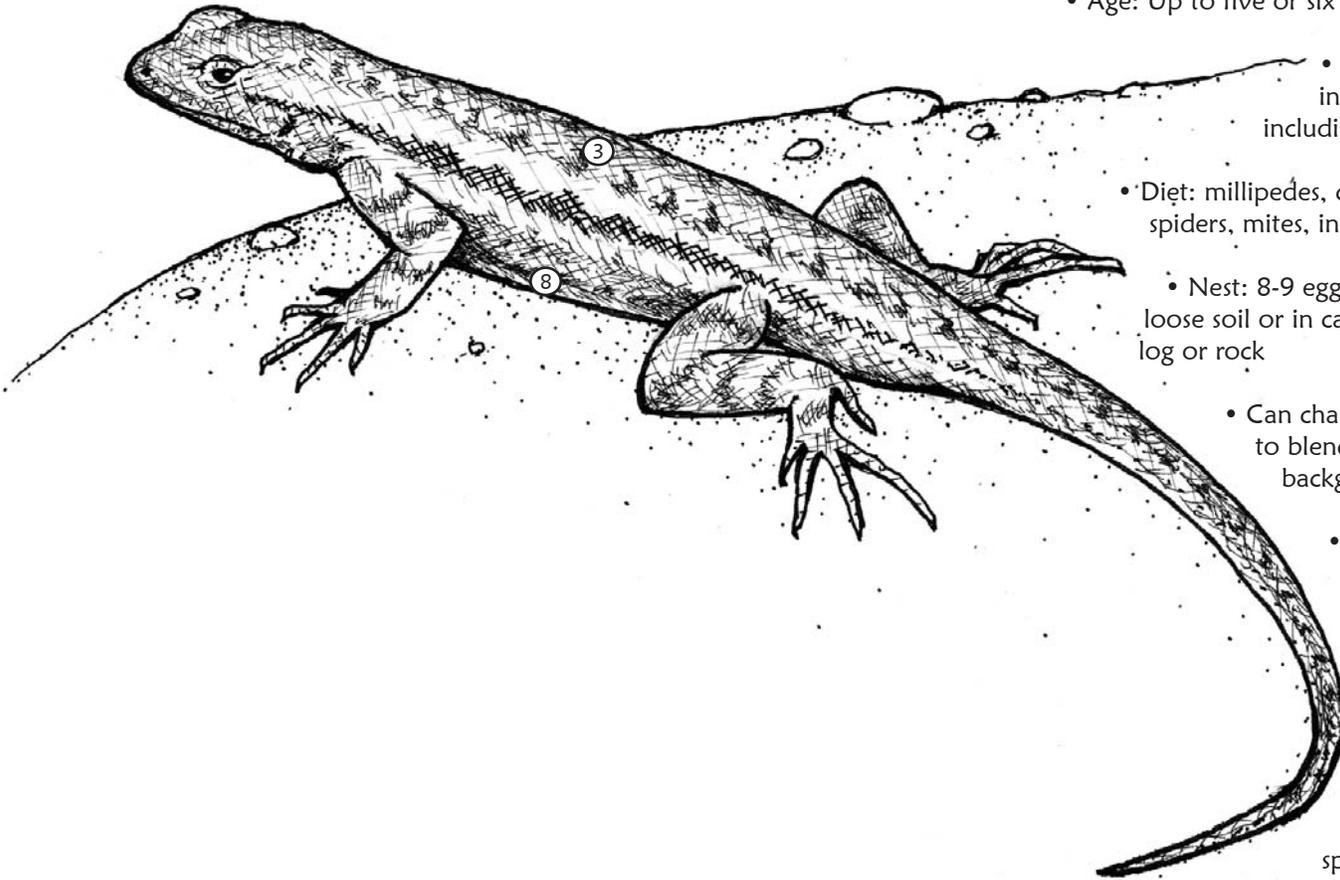
Scrub oaks are just that: scrubby! They are small oak bushes, not tall oak trees. Scrub oaks grow close to each other and other bushes. Small animals find safety in their shelter.

What makes an oak, an oak? How can a tall tree with large thin leaves be related to a shrub with small, scratchy, thick leaves? The answer is in the seeds. All oaks make acorns, their seeds. A plant may have leaves that look like oak leaves (like poison oak), but it's only an oak if it bears acorns. Oaks come in many forms and sizes, and each kind is adapted to its unique environment. Scrub oaks are dense bushes that live in dry chaparral habitat that gets a lot of sun—habitat too dry for tree oaks. Their thick, small leaves help conserve precious water. Their tight, crowded communities provide food and cover for many living things, including California quail, brush rabbits, gray foxes, and western fence lizards.

# Habitat: Chaparral

## Lizard Facts

- Skin: Light gray to black, with two rows of light and dark markings down the back.
- Males have a brighter blue belly and throat than females.
- Age: Up to five or six years



- Size: Six inches long, including the tail
- Diet: millipedes, centipedes, spiders, mites, insects
- Nest: 8-9 eggs buried in loose soil or in cavity under a log or rock
- Can change its color to blend in with its background
- Food for snakes, cats, coyotes, hawks, owls, crows, road runners, and black widow spiders.

- To fool predators, the tail will drop off and wiggle as if it were still alive.

# Western Fence Lizard

*Sceloporus occidentalis*

Fence lizards like to warm themselves by sitting on a sunny rock or branch. The male fence lizard chases away other male lizards that come into the area where he hunts and lives.

Each male fence lizard defends his territory. One way he warns other males not to enter his territory is by pumping his body up and down as if he were doing pushups. This allows other males to see how blue his belly is and to warn his challengers. That is why the fence lizard is also called a 'blue belly.' The male's blue belly might also attract females, whose bellies are not as blue. At Cachuma Lake, look for western fence lizards along the Don Wimpress Nature Trail.

Colors: 1/Black, 2/White, 3/Gray, 4/Red, 5/Orange, 6/Yellow, 7/Green, 8/Blue, 9/Pink, 10/Purple, 11/Brown

# Chaparral Habitat: Think About It!

## California Quail

In fall and winter a covey of quail gathers and feeds together twice a day.

- How does feeding in a large group protect quail from predators?
- What are the dangers of feeding this way?
- Why don't quail build nests in a large group?

## Gall Wasps and Oak Apples

- How does forming the gall help the wasp?
- What kinds of animals might like to eat grubs?
- What happens to the oak gall wasp if all the oak trees are gone?

## Purple Sage

- Having a strong smell can protect a leaf. How?
- What could happen if fires are always prevented where sages grow in the wild?

## Scrub Oak

Remember that scrub oaks thrive in hot, dry, chaparral habitat.

- What do you think would happen to scrub oaks if our climate suddenly turned cold and wet for 1000s of years?
- What if the climate turned cold and wet slowly?
- How do you think the leaves of scrub oak might adapt in a cold climate? The height?

## Western Fence Lizard

- Why is it important to the male fence lizard to keep other lizards out of his territory?
- What do you think the male fence lizard is 'saying' to other males when he does push-ups?
- Do you think push-ups make the male fence lizard stronger?