

# Chaparral & Coastal Sage Scrub Scavenger Hunt

## Teacher Key

### High School

National Park Service  
U.S. Department of the Interior

Santa Monica Mountains  
National Recreation Area



USE THIS KEY TO ACCOMPANY THE CHAPARRAL & COASTAL SAGE SCRUB SCAVENGER HUNT ACTIVITY THAT IS PART OF THE SOUTHERN CALIFORNIA FIRE ECOLOGY WILDFIRE WALKABOUT.

#### GUIDELINES

After a short rest, tell the students that they will be participating in a scavenger hunt.

Have them read the background information and instructions and answer any questions they may have.

With each find, the students are to write the name of the flora or fauna and answer the question, share the provided information with your group, or complete the task associated with it.

Students can use the Scavenger Hunt Word Bank for identification purposes.

Continue the scavenger hunt along the trail until your next stop.

#### OPTIONAL BIODIVERSITY BONUS!

iNaturalist is a citizen science project and online social network of naturalists, citizen scientists, and biologists built on the concept of mapping and sharing observations of biodiversity across the globe.

Find it in your app store or visit [inaturalist.org](https://www.inaturalist.org). You can have the students create their own account or create a classroom account. It is free!

During their visit, have the students take pictures of at least three plants or animals in the chaparral and upload them to a class inaturalist account for identification.

Before the field trip, visit: <https://www.inaturalist.org/pages/getting+started> or watch the video at: <https://vimeo.com/162581545> for more information about how to use iNaturalist and have the students download the app.

When you return you can analyze the data collected to help determine how healthy the ecosystems in the park are based on the biodiversity data collected.

THESE ABBREVIATIONS ARE USED WITHIN THE KEY TO IDENTIFY THE TYPICAL PLANT COMMUNITIES THAT THE PLANTS GROW WITHIN:

- CH = Chaparral
- CSS = Coastal Sage Scrub
- OW = Oak Woodland
- G = Grasslands
- I = Invasive

- Scavenger hunt answers are written in **BROWN.**





Find a plant that has re-sprouted from its roots after the fire. Can you identify this plant? Do you think it is an:

- obligate resprouter
- obligate seeder

• facultative seeder

Students can find any plant that is resprouting and identify it. The one in the picture is **Laurel Sumac**.



This is the only reptile in the Santa Monica Mountains that gives birth to live young. Their babies can grow their own “rattles.”

## Southern Pacific Rattlesnake

*Crotalus oreganus helleri*



This obligate resprouter could give you an itchy rash if you touch it! Leaves of three, let it be! Expect this plant in shaded and sheltered areas. It is often under trees and along the banks of streams. In the winter it loses its leaves (deciduous) but the bare stems are potent irritants as well.

## Poison Oak (OW)

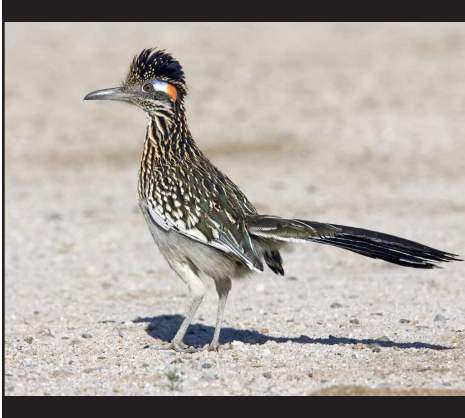
*Toxicodendron diversilobum*



Look for the blue flash and harsh call of this intelligent bird. Unlike blue jays, these birds do not have a crest on top of their heads. Watch for them to pick acorns from the oaks and bury them for later feeding.

## California Scrub Jay

*Aphelocoma californica*



Look for these birds running after a lizard or rodent in the chaparral. These track stars can run 15 miles an hour with faster spurts when needed. They only fly when necessary but can leap straight up in the air fast enough to catch a hummingbird!

## Greater Roadrunner

*Geococcyx californianus*



This facultative seeder can resprout as fast as 15 days after burning in a wildfire. The genus name *Malosma* translates to “apple smell”, referring to the aroma of the plant. Smell this plant, what do you smell?

Plant name:  
**Laurel Sumac (CSS)**  
*Malosma laurina*



These lizards hide during a fire and then invade the burn site for food and sun. Watch for them to do “pushups” to flash their blue bellies and defend their territory from other males and show off for the ladies!

## Western Fence Lizard

*Sceloporus occidentalis*



A version of this obligate resprouter is the namesake for the word Chaparral. It is derived from the Spanish word, *Chaparro* (dwarf oak).

## Scrub Oak (CH)

*Quercus berberidifolia*



This obligate resprouter is not found in mature chaparral but is found in burned areas where sunlight is more prevalent.

**Coyote Brush (CSS)**  
*Baccharis pilularis*



This top predator depends on the ecosystem it lives in. What are three ways this animal depends on its physical environment?

**Mountain Lion**  
(Puma, Cougar, Panther)  
*Puma concolor*  
Student answers can vary:  
food, water, shelter



This facultative seeder is susceptible to catching & spreading fire because of its dry branches and resinous wood which is why it is also called “greasewood.”

**Chamise (CH)**  
*Adenostoma fasciculatum*



Listen for the pecking and drilling of these birds and look for their “granaries” in dead trees. These birds hoard acorns in holes in trees and will use the same “granary” tree for generations.

**Acorn Woodpecker**  
*Melanerpes formicivorus*



This is California’s state bird that is found in many *habitats*. It likes to eat seeds, invertebrates, and berries such as the poison oak berry. Listen for their call which sounds like “ChiCago ChiCago!”

**California Quail**  
*Callipepla californica*



This obligate resprouter is also referred to as Christmas Berry because of its red berries in the winter season.

**Toyon**  
(CH)  
*Heteromeles arbutifolia*



These annual *non-native* grasses are called “flashy fuels” because they are highly combustible and burn faster than chaparral. Many are considered *invasive* and take over an area if it burns too frequently. What is the term used to describe this change?

**Type-conversion**  
Grasses, Annual Non-native (G, I)  
(Bromes, Cheatgrass, etc...)



The flowers on this chaparral plant start out yellow and turn red as the summer arrives. It plays an important role in ecosystem recovery after a fire. Its seeds have a thick coating that sometimes only a hot fire can crack. These plants help the recovery by transferring much needed nitrogen, lost through the fire, from the air back into the soil. Larger plants in the next stage of recovery after a fire need this nutrient to thrive.

**Deer Weed (CH)**  
*Acmispon glaber*



These trees resprout from the trunk and upper limbs within three months following a fire. This is referred to as epicormic sprouting. Look for these *native* trees along the trail that burned in the fire but are now showing epicormic sprouting.

**Coast Live Oak (OW)**  
*Quercus agrifolia*



This nocturnal predator exists in wild and urban places and can run up to 65 km/hr and jump up to 4 meters when hunting small mammals. Have you ever seen one of these animals in the city?

**Coyote**  
*Canis latrans*



This plant is sometimes called “Cowboy Cologne.” Without ripping pieces of this facultative seeder off, rub your hand over this plant gently and smell your hand. What does it smell like? \_\_\_\_\_

**California Sagebrush (CSS)**  
*Artemisia californica*



This is the most common bird in the chaparral. Listen closely for its song that sounds like the bouncing of a ping-pong ball.

**Wrentit**  
*Chamaea fasciata*



Look for this common chaparral bird foraging on the ground in leaf litter or in the shrubs for insects. They have distinguishing white spots on their upperparts.

**Spotted Towhee**  
*Pipilo maculatus*



Also called California Lilac, some of these common shrubs of the chaparral are obligate seeders while others are facultative seeders.

**Greenbark Ceanothus (CH)**  
*Ceanothus spinosus*



Don't “monkey around” with this fire following facultative seeding flower or you may get a sticky surprise!

**Monkey Flower**  
(Sticky or Bush) (CH, CSS, OW)  
*Mimulus aurantiacus*



This pretty facultative seeder is in the same family as *Althaea officinalis* or marsh-mallow plant. One use for this European *native* plant was to make the sugary confection marshmallows.

**Bush Mallow**  
(or Chaparral Mallow)  
(CSS or CH)  
*Malacothamnus fasciculatus*



The berries of this plant are an important food source for birds as well as a popular ingredient in jams and pies. Have you ever eaten these berries before?

**Elderberry**  
(OW, CH)  
*Sambucus nigra*



Look for the glimpse of a red-brown tail on this large bird of prey soaring high in the sky. They may be hunting the small mammals, reptiles, or smaller birds in the chaparral and grasslands around you.

**Red Tailed Hawk**  
(Picture: Juvenile)  
*Buteo jamaicensis*



This plant only blooms once, then dies. Look for its tall stalk with white flowers but don't get too close to the leaves of this plant with their needle-sharp ends!

**Chaparral Yucca**  
(CSS or CH)  
*Hesperoyucca whipplei*



You may see this common non-venomous snake cross the trail. Although they resemble rattlesnakes, you can tell the difference by their narrow rather than triangle shaped head.

**Gopher Snake**  
*Pituophis catenifer*



Most of these shrubs with smooth, crooked, burgundy colored branches are obligate resprouters with some that are facultative seeders. Its name means "little apple" in Spanish referring to its little berries.

**Manzanita (CH)**  
*Arctostaphylos*



The pads and fruit (tunas) of this plant are edible, but don't pick these off, they are covered in spines! Have you ever eaten nopales or tunas?

**Chaparral Prickly Pear (CSS)**  
*Opuntia oricola*



This *native* herb that follows fire is nature's own "band-aid" erosion control measure. It is also California's state flower.

**California Poppy**  
(CSS or G)  
*Eschscholzia californica*



It's not hard to spot this opportunistic, *non-native*, and *invasive* plant that has seeds which can be used to make a popular condiment for hot dogs.

**Black Mustard**  
(G, I)  
*Brassica nigra*