

Doane Valley Nature Trail

**Palomar Mountain
State Park**

Photo courtesy of Harry Schrader

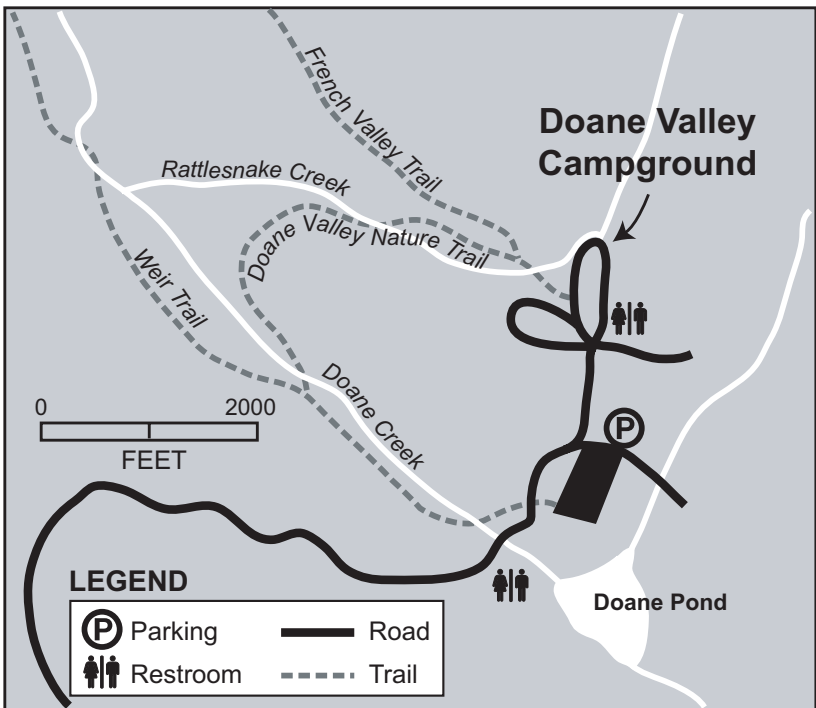


Doane Valley Nature Trail

Palomar Mountain State Park

Welcome to the Doane Valley Nature Trail at Palomar Mountain State Park. This easy 1-mile trail offers you an opportunity to relax and enjoy one of California's finest natural outdoor areas. This guide will help you make the most of your walk, with information about some of the plants and natural features you will see along the trail. The Doane Valley Nature Trail is a great place to see the wide variety of plants that grow in this region and to learn about their characteristics, their habitats, and the many ways they have been used by people over time.

Most of the trail is an easy walk. However, there are two stream crossings and a few steep areas. Remember to be safe, and leave any plants or animals you see for the next person to enjoy.



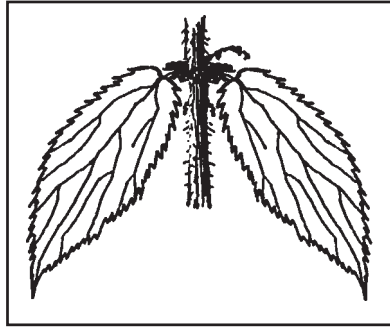
1 Stinging Nettle

(*Urtica holosericea*)

Beware of the painful sting of this plant growing along the creek and in other moist areas. The hairs along the stems contain a chemical similar to that of red ants.

If your skin brushes against these hairs, you will be

injected with the chemical, which stings for a few minutes. It's not all bad though; Native Americans used the leaves as a vegetable and the fibers for thread. Poison oak is another plant to beware of, though there are only a few of these plants along this trail. Remember: "leaves of three, beware of me."



2 Wild Rose

(*Rosa californica*)

This shrub-like plant is easy to identify by the small sharp spines, alternating leaves, and, in spring and summer, simple,



fragrant rose-pink flowers. The rose will grow anywhere there is enough moisture. Native Americans had many uses for the plant, both medicinal and religious.

3 Doane Creek

(pronounced “doe-n”)

This clear water from several springs flows through Doane Pond, then joins French Creek to form Pauma Creek in Lower Doane Valley. Eventually Pauma Creek flows into the San Luis Rey River, which meets the sea in Oceanside.

4 Serviceberry

(*Amelanchier utahensis*)

This slender-stemmed shrub has clusters of white flowers in early spring. The edible blue-black berries mature in late July or early August and are eaten by wildlife. Native Americans used the boiled inner green bark as an eyewash and the wood for arrow shafts.



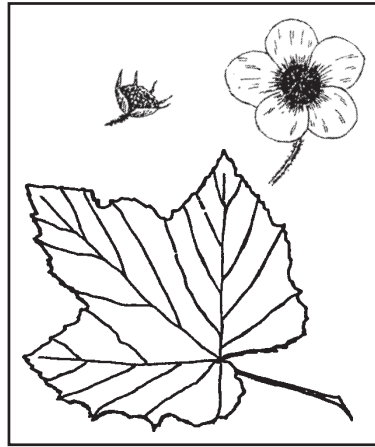
5 Life in a Log

What are those squiggly lines on the log? This log bears the scars of a bark beetle infestation. Bark beetles, the size of a grain of rice, bore under a tree’s bark to lay their eggs. When the larvae hatch, they chew their way through the living tissue of the tree. As they grow, their trails get wider until they leave the tree as an adult. If a tree is unable to produce enough sap to defend itself, it will succumb to millions of these tiny insects.

6 Thimbleberry

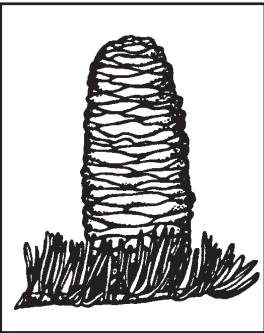
(Rubus parviflorus)

A member of the rose family, the thimbleberry is closely related to the western raspberry and the California blackberry. The plant's mature fruit and very large leaves are a source of food for wildlife.



7 White Fir

(Abies concolor)



The trees ahead of you are called white fir, possibly because of the light color of their bark. This is the most widespread of the western firs—the seedlings will grow in almost any kind of soil. The trees grow rapidly for 50 - 100 years, then the growth rate slows for the rest of their life-span, which can be up to 350 years.

8 Landslide!

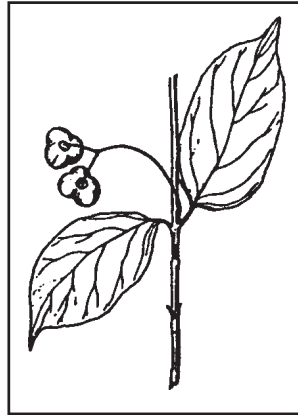
During the winter of 1992-93, Palomar Mountain received approximately 80 inches of rain. The tremendous amount of rainfall resulted in the landslide you see above. In the time since, the plants are returning, and eventually the area will look much as it did. This is a classic example of the cyclical nature of life—as things die or are destroyed, they are soon replaced by new forms of life.

9

Western Burning Bush*(Eunonymus occidentalis var. parishii)*

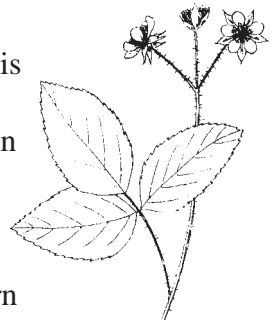
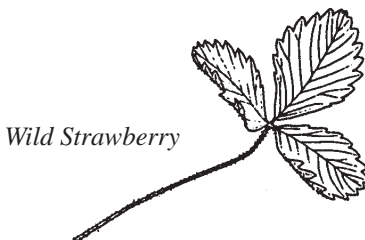
In southern California this bush with the large, smooth leaves is found only in the high mountains. The plant's name is derived from its red-orange seeds that dangle from the branches.

In late spring, you may recognize the columbine (*Aquilegia formosa* var. *hypolasia*) by its unique flower. Each of the short petals ends in a spur that contains nectar and turns orange in early summer.

**10 Berry Alley**

Surrounding you on either side of the trail is a variety of berry bushes. See if you can find the delicate pink blossoms of mountain currant. These will mature into a blue-black berry that is good fresh or dried. Also, look for a prickly vine growing all throughout the other plants. This is western raspberry.

Low to the ground, you can find wild strawberry. All these berries are much-loved by wildlife and help provide the nutrition they need to survive the winter.

*Mountain Currant**Wild Strawberry**Western Raspberry*

11 Lichen and Moss

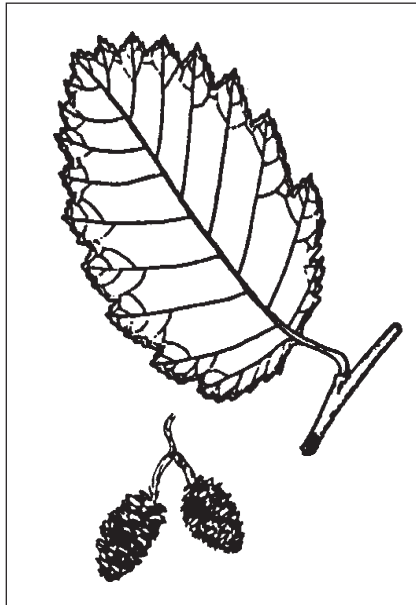
You will see several different plants growing on the boulder. The dark moss is a primitive plant that needs low light and lots of moisture. In dry times it shrivels up, waiting for enough moisture to come back to life.

Lichen (like-n), the light green plant, is actually a fungus coexisting with algae. The fungus provides a home and moisture for the algae while the algae provides the fungus with food. Without each other they would not survive. The acidic waste from lichen eats away at the rock, helping to form soil.

12 White Alder

(Alnus rhombifolia)

The thick grove of tall trees ahead of you is a classic example of a riparian species. “Riparian” refers to the area along a stream, river or lake. Species like alders require a lot of water, therefore they can only grow along the banks of these waterways.



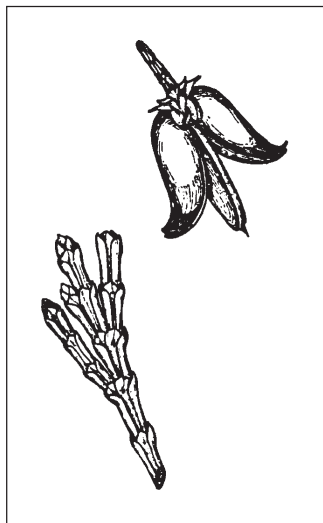
13 Plant Competition

Look around at the forest floor, and you will notice very few plants growing beneath the trees. The tall trees above block out most of the sunlight, which is necessary for photosynthesis. If one of these trees were to fall, the opening would let in sunlight and allow other plants to grow. Eventually new trees would sprout and compete with the other plants for the limited sunlight.

14 Incense Cedar

(Calocedrus decurrens)

You might easily mistake this tree for a redwood. Like the redwood, it has ruddy, deeply furrowed bark and a heavily buttressed trunk. But cedars have scaly leaves that overlap on the twigs, while redwoods have short needle leaves. Nor will this tree attain the size or age of the redwood. It is exceptional when an incense cedar lives even 500 years or grows over 150 feet.



**PLEASE STAY BEHIND THE FENCE TO
PROTECT THIS GIANT TREE'S ROOTS SO
IT CAN CONTINUE TO GROW.**

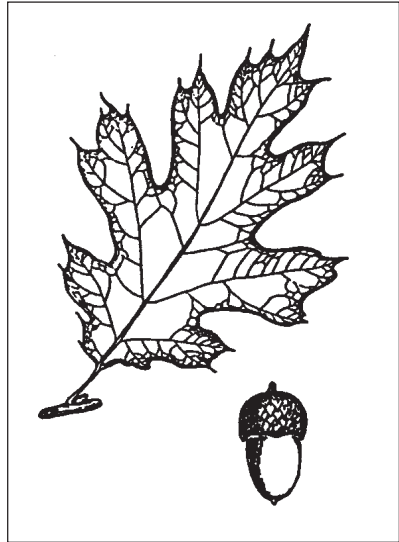
15 On the Edge

Note the joining of mixed forest and meadow communities. See how different the meadow is from the nearby forest. The soil type and moisture are perfect for these meadow grasses, which form tight mats that prevent most larger plants from taking root.

16 California Black Oak

(Quercus kelloggii)

This tree is an oak of the high mountains. The leaves are deciduous, turning golden-yellow before they fall in autumn. The large acorns mature in two years, and until the early part of the second year are completely covered by spherical cups. These acorns were favored by Native Americans and are eaten in great quantities by **band-tailed pigeons** (*Columba fasciata*).



17 Canyon Live Oak

(Quercus chrysolepis)

Our most common evergreen oak is represented by the trees on the left side of the trail. Notice the great variety in leaf size, shape and color. These differences are the result of the age of the leaves, which stay on the tree three to four years. Most of the leaves have spiny edges, though some are smooth. Acorns are mature by the end of the second season.

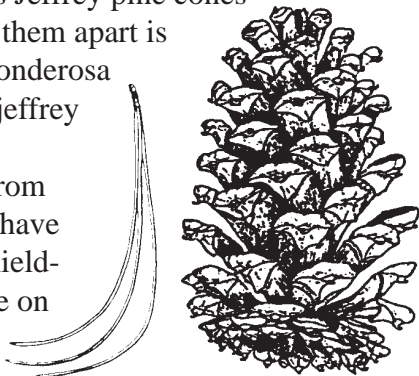
The canyon live oak varies from a low, dense chaparral/brush species to a tall tree, with 15 to 20 feet of clear trunk. The wood is exceedingly strong and was prized by the pioneers.



18 Ponderosa Pine

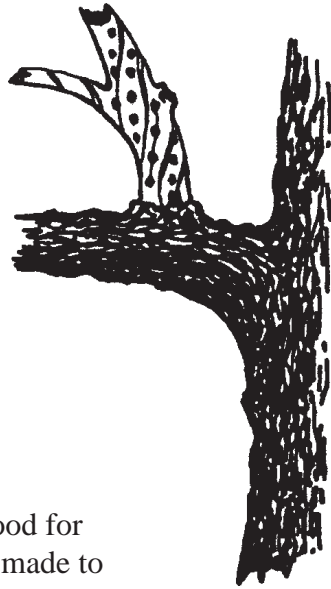
(Pinus ponderosa)

This tree is similar to the Jeffrey pine, but its cones are prickly to the touch, whereas Jeffrey pine cones are not. Another way to tell them apart is by smelling the bark. The ponderosa pine smells of resin and the Jeffrey pine like vanilla. The older ponderosas, which may be from 350 - 500 years old, usually have bark that is separated into shield-like plates as seen in the pine on the opposite side of the trail.



19 Fire Ecology

The tree that stands before you is the remains of a California black oak that was burned in 1987 when fire swept through areas of Palomar Mountain. As a fire burns through, it cleans the forest floor, prepares the soil for new growth, and provides for the beginnings of a new forest. The important role fire plays in maintaining a healthy ecosystem has been misunderstood for decades. Now efforts are being made to reintroduce fire as an essential part of a forest environment.



20 Oak Mistletoe

(Phoradendron villosum)

Look up into the oak tree to see the clumps of mistletoe. Known for its traditional uses during Christmas, this partially parasitic plant steals some of its nutrients from its host plant. Birds love to eat the berries and in turn help spread the mistletoe seeds to other trees.



21 Brake or Bracken Fern

(*Pteridium aquilinum* var. *pubescens*)



One of the most common plants in the park, this fern helps make the forest floor green in the summer and adds to the autumn color when it turns yellow in the fall. In late summer look for the reproductive spores on the underside edges of the ferns. Fiddlenecks (very young ferns) taste similar to walnuts and were eaten by Native Americans.

22 Creek Dogwood

(*Cornus occidentalis*)

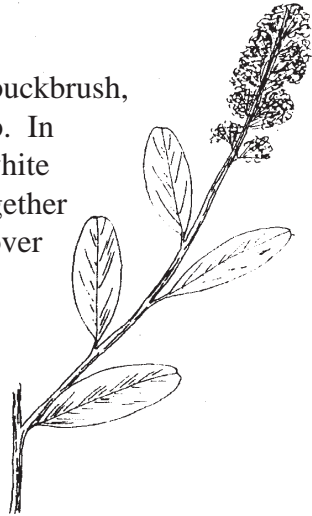
Two types of dogwood grow in the park. Here you see the creek dogwood and further upstream you may see **mountain dogwood** (*Cornus nuttallii*). Both have beautiful large white flowers in the spring and bright red leaves and berries, adding to the beauty of fall when their leaves change color.



23 Palmer Ceanothus

(*Ceanothus palmeri*)

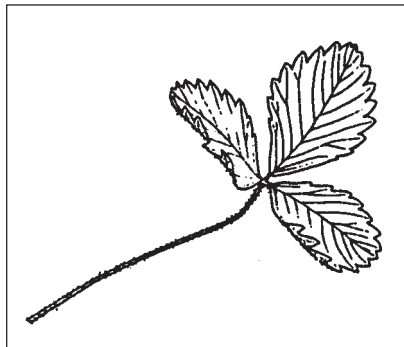
Also known as California lilac or buckbrush, it is the park's most common shrub. In spring this shrub is covered with white blossoms, which can be rubbed together to make a soapy lather. Growing over this lilac is a vine called **virgin's bower** (*Clematis ligusticifolia*). This vine is also abundant in the park and uses nearby hardy plants for support.



24 Wild Strawberry

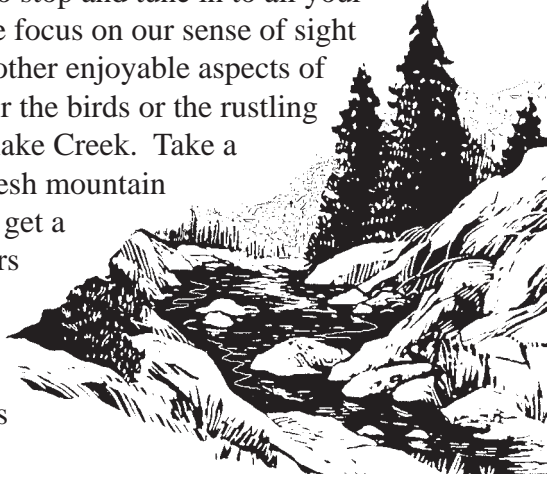
(*Fragaria californica*)

This plant is easily identified by its similarity to the much larger domestic strawberry. It is a member of the rose family and is found in open woods and hillsides in sandy, moist ground. Wildlife enjoy the small, sweet berries.



25 More Than Meets The Eye

Take a moment to stop and tune in to all your senses. Often we focus on our sense of sight and miss out on other enjoyable aspects of nature. Listen for the birds or the rustling water of Rattlesnake Creek. Take a deep breath of fresh mountain air, and you may get a scent of the cedars surrounding you. Remember, there's more to nature than meets the eye.



26 Arroyo Willow (or White Willow)

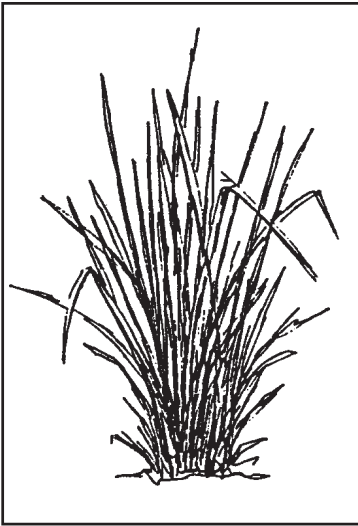
(*Salix lasiolepis*)

Bordering the meadow is the most common willow in San Diego County. Notice how the slightest breeze causes the

foliage to flash. This is caused by the dark yellow-green upper leaf surface alternating with the silvery lower surface.

Look for little red swellings on the leaves. These are called galls, inside of which insect larvae are growing.





27 Deer Grass

(*Muhlenbergia rigens*)

This grass is readily identified by its size and its long whip-like blades. It is found along streams, at edges of meadows, and in damp areas on hillsides from low elevations to about 7,000 feet. Flowering in summer or fall, it is not palatable to domestic livestock. Native Americans of southern

California used deer grass to make the foundations of their coiled baskets.

28 Wild Buckwheat

(*Eriogonum fasciculatum* var. *polifolium*)

A relative of the grain used to make buckwheat pancakes, the seeds of this plant were eaten by Native Americans during hard times. Flowers and seeds continue to be a food source for wildlife. An eyewash was also made from the flowers.



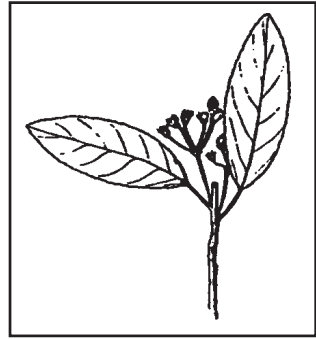
29 Oak Galls

Many different types of insects are the cause of a variety of galls. You may have already seen some on the willows. Oaks too support many kinds of galls. See if you can find some fuzzy dots on the underside of the leaves or a swelling on a twig. These are two more examples of these interesting insect incubators.

30 Coffeeberry

(Rhamnus californica)

Coffeeberry, also known as pigeon-berry, is a member of the buckthorn family. This plant grows in sandy or rocky areas along hillsides and is a good source of food for birds, particularly the band-tailed pigeon. In Spanish, “paloma” is pigeon and “mar” is sea. Put the words together and you get Palomar. Many years ago, there were so many band-tailed pigeons that the mountain was given their name.



Turn right and walk through the campground to return to the Doane Pond parking lot.

Conclusion

The habitats that are traversed by the Doane Valley Nature Trail are home to a wide variety of plants and animals. The few dozen plants and features called out in this booklet are only a small percentage of the diverse resources that can be found in the park. If you would like to learn more, check at the entrance station to see if there are any guided nature walks or campfire programs scheduled. We hope you enjoyed your walk and will return soon to Palomar Mountain State Park.

Our Mission

The mission of the California Department of Parks and Recreation is to provide for the health, inspiration and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

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