18. Chaparral Broom (Baccharis sarothroides) This plant is nearly leafless, but it has bright green branches. It grows from six to seven feet tall. In fall and winter, the female plant gets covered with seeds that look like fluffy cotton.

19. Laurel Sumac (Malosma laurina) This plant can help predict the weather! Laurel Sumac is sensitive to very cold weather, just like avocado and citrus trees. Growers look for this plant, and plant their orchards and groves where it occurs. Also called the taco plant, its large leaves fold in half on sunny days to save water. The bright green leaves and red stems make this plant stand out from the rest of the Chaparral.

20. Wildlife Habitat The number and variety of creatures in the Elfin Forest is amazing. Actually, the Chaparral is alive with life of all sorts that most people don't even notice. Bats, raccoons, brush rabbits, mule deer, bobcats, woodrats, barn owls, turkey vultures, horned lizards, rosy boas, velvet ants, and tarantula wasps (just to name a few!) depend on this dense brush and dry climate to survive. Many animals are nocturnal (awake at nighttime), so you probably won't see them. Birds are most common. You will usually see them among the branches or circling above the hills and valleys. You might also notice lizards, snakes and insects soaking up the sun or traveling along the trail.

21. San Diego Sagewort (Artemisia palmeri) Sagewort is quite common in the southwestern corner of San Diego County. It can grow up to six feet tall and blooms from late summer into the rainy season. Its narrow leaves are divided into three or five parts and have a distinct aroma.

22. Of All the Gall! Can you find any brownish, ping pong ball-sized balls on the scrub oak in front of you? These are called galls. They form when a wasp lays its eggs in the stem of the plant. This causes the stem to swell. When the larvae emerge from the eggs, they give off a chemical, causing the stem to swell into a gall. The gall gives the small wasps protection and a source of food.

23. Warty-Stemmed Ceanothus (Ceanothus verrucosus) This plant has dark green leaves, and blooms with white flowers in thick clusters. It is very showy in the spring. This plant is considered a sensitive species because its range (where it lives) is limited to only this region. Native Americans used ceanothus seeds as food, and the blossoms make a fine, soap-like lather when they were rubbed on skin. They also used the leaves as a kind of tobacco.

24. Diversity As you look down the slope, across the valley and up the other side, you can notice several different plant communities. If you look closely, you can even identify the different communities, such as Chaparral, Live Oak Riparian Forest, Eucalyptus Riparian Forest and disturbed Chaparral/ Sage scrub. Each of these plant communities is made up of individual species, especially adapted to be successful in that particular location.

25. Lemonadeberry (Rhus integrifolia) Lemonadeberry belongs to the same family as Laurel Sumac and Poison Oak. Don't worry, you can touch this one! The clusters of small pink berries you see in winter are really flowers. The sticky red fruit doesn't form until spring. Native Americans used the fruit to make a refreshing drink that tasted a lot like lemonade. That's where the name Lenonadeberry came from.

26. Coastal Wood Fern (Dryopteris arguta) Our Wood Fern is one of a large group of wood-land ferns. Its name in Greek means "oak fern." It likes rocky, shaded slopes near streams. It mostly grows below 5,000 feet above sea level. A mature Wood Fern is a large plant with lots of leaves that can be as long as 30 inches. If you look closely at the back of the leaves, you may see neatly arranged rows of "sori." These look like puffy horse shoes, and are the beginning of an elaborate reproduction process.

27. Hollyleaf Cherry (Prunus illicifolia) The most obvious thing about this plant is its thick spine-toothed, holly-like leaves. In the spring, Hollyleaf Cherry blooms with clusters of white flowers. When the cherries mature, they turn dark red.

This trail connects to the Way Up Trail. To return to the staging area, proceed down the hill.

Thanks for joining us at Elfin Forest Recreational Reserve!

When you are done with this brochure, if you do not wish to keep it, please return it to the dispenser. Thanks!

Artemisia palmeri drawing used with permission from *Illustrated Flora of the Pacific States* by L. Abrams & R. Stinchfield Ferris

Elfin Forest Recreational Reserve

Botanical Trail Guide

If you have questions about the Reserve, please see a park ranger, or call 760-632-4212.

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San Diego County Water Authority

Olivenhain Municipal Water District

U.S. Department of the Interior Bureau of Land Management

1. ***Welcome to the Elfin Forest Recreational Reserve Botanical Trail.*** The trail and this brochure have been designed to introduce you to some of the plant communities found at the Reserve, and to help you identify some of the species found here. There are over 150 different plants native to the Chaparral, coastal sage scrub and riparian habitats. With only 27 stops, there is no way we can identify each and every one. But if your walk today makes you wonder about these plant communities, and you want to find out more, ask a park ranger. He or she will be glad to help you.

2. ***Chaparral*** The Chaparral plant community is common to the foothills and lower mountains of San Diego County. Sometimes called the Elfin Forest, the trees and shrubs are dwarfed, rarely growing more than twenty feet tall. San Diego's summer is hot and dry, and the plants have adapted to this lack of rainfall with small, leathery leaves. The leaves of most Chaparral plants seem waxy-coated, to reduce water loss by evaporation.

3. ***Australian Invasion*** The stumps you see are from Eucalyptus trees. The Eucalyptus is a native of Australia and grows very fast. It was originally imported to the United States to be grown for railroad ties, but the wood split when the workers tried to drive spikes through it. When the scented leaves drop to the ground, they release oils which poison the soil. This keeps the native plants from growing, reducing the number of species in the area. Removal of these Australian invaders aid in the restoration of the native habitat.

4. ***Riparian Habitat*** Riparian is simply a word that means "with water." Escondido Creek, which is in front of you, flows year-round. This creates a precious and important water-reliant ecosystem for many plants and animals, such as the sycamore and mule deer.

5. ***Arroyo Willow (Salix lasiolepis)*** The Arroyo Willow is native to California. It has dark green leaves and pale, gray-brown bark. You can find it in the wet soils of stream banks, valleys, foothills and mountains. The huge root system of this hearty and strong tree anchors it to the stream bank, even during the swiftest floods.

NOTE: PLEASE CROSS THE CREEK HERE AND CONTINUE UP THE TRAIL.
DO NOT CROSS WHEN THE WATER IS HIGH!

6. ***Coast Live Oak (Quercus agrifolia)*** The Coast Live Oak is the most dominant plant here. Each tree may be a separate ecosystem, with birds and insects and other plants living within and under its huge branches. All the trees and plants here make up the Live Oak Riparian Forest. This is a cool, shady place, with a canopy-like umbrella.

7. ***Poison Oak (Toxicodendron diversiloba)*** This is not an oak at all. It probably got its name from the shape of its leaves. They look a little like oak leaves. This plant makes an oil that can irritate your skin, causing a very itchy rash. The red and green leaves, which always grow in groups of three, can help you remember an easy rhyme: "Leaves of three, stay away from me!"

8. ***Ecotone*** An ecotone is a dividing line between one plant community and another. You have just walked out of one community, the Live Oak Riparian Forest, and into another. You are now in the hotter and drier Chaparral. What other differences do you notice between these two communities?

9. ***Black Sage (Salvia mellifera)*** Gently rub one of the leaves. Do you notice the distinct aroma? This strong scent, along with the soft, dark green leaves and lavender blue flowers set this plant aside as part of the mixed Chaparral plant community. Native Americans would cover their scent with this plant when they were hunting game in the Chaparral.

10. ***Mission Manzanita (Xylococcus bicolor)*** is an evergreen woody shrub with pink to white bell shaped flowers which turn into berries. It is said that the Indians made a drink from these berries. Note the hard leaves which curl down. This is a strategy for conserving water, typical in many drought-tolerant plants.

11. ***Mojave Yucca (Yucca schidigera)*** Another name for this plant is the Spanish Bayonet. The leaves are narrow and sharply pointed and they hurt when they poke you. It sends up a large stalk from the middle of the plant that looks like an asparagus. At the top of the stalk, you can find a cluster of waxy, cream-colored flowers. Native Americans used the tough, stringy fibers of the leaves to make rope, thread, horse blankets, sandals and baskets.

12. ***Water Dependence*** Do you notice a slight change in ground cover on the trail here? Oak trees are here too. There's also a small dip in the trail. Canyon runoff causes all of these things. Rain water drains from the hills above, collects here, and seeps through. Plants that depend on more water can now thrive in this spot.

13. ***Which Way is North?*** Look all the way across the canyon to the opposite hillside. Do you notice how the plants are more patchy? There is much more open, rocky area, with large areas of grasses. Now look up at the hillside you are on. What's different? The plants are larger and much closer together, and there is almost no exposed rock. You are standing on a north-facing slope. It receives much less direct sunlight, which helps it to hold more moisture for the plants. The other hillside faces south, and gets much more direct sun.

14. ***Bushrue (Cneoridium dumosum)*** Bushrue is the only known native California member of the Citrus family. If you smell the leaves, you will notice a strong, spicy aroma. The fruit looks like a pea-sized orange, but is very bitter. You don't want to try this for breakfast!

15. ***Mountain Mahogany (Cercocarpus minutiflorus)*** Since this is such a steep climb, go ahead and take a quick rest here. As you look at the Mountain Mahogany, notice how many other types of plants there are beneath it. Mountain Mahogany can be a tree or small shrub, and it is found on the dry hillsides of San Diego County. If the plant has fruit, notice the twisted feather-like plume attached to it.

16. ***Chamise (Adenostoma fasciculatum)*** The name Chamise is from a Spanish word "chamiso," which is a small brush and wood shack that can easily catch fire. Chamise is also called Greasewood. It burns fast and furiously during a wildfire, and makes thick, black smoke. Native Americans used the wood to make arrow shafts and throwing sticks. They also made a tea from the tiny needle-like leaves. They believed that drinking this tea would cure a variety of diseases.

17. ***Chaparral Density*** Take a look at how close together the plants are in front of you. Several species, like Black Sage, Chamise, Lemonadeberry and Mission Manzanita, are competing for space, sunlight, soil and water. This competition leads to dense, almost impassable growth.