

### Discovery Point 1

You can tell where the river travels through the valley below by looking for the thickest growth of trees and plants. That is called *riparian habitat*. Some of the trees that grow along the river are the same trees that are growing in the drainage that separates the trail from the parking lot. The majority of the trees you see in this small drainage are arroyo willow. Willows need a constant source of water to survive. They have adapted to California's dry summers by developing long tap roots that grow deep into the soil in search of water. Here is a picture of an arroyo willow. Can you find this tree along the trail?



Arroyo Willow

### Discovery Point 2

Even if you can't see any wildlife, it is all around you. Birds, mammals and even reptiles are nearby. Stop and listen. Can you hear the different kinds of bird calls? Do you hear rustling in the leaves? Could it be a mouse or a lizard? You can discover who lives in here without even seeing them, if you look, listen, or even sniff for the clues they leave behind.

There may be signs of wildlife on the trail — a footprint or track or maybe some droppings or scat. Stop and look. Coyote scat is always on the trail. Clues can even be found in the scat. Coyotes eat many things including rabbits and mice. If you see fur in the scat, you know that rabbits and mice live nearby.

Sometimes even odors can tell you what animal might be about. Have you ever smelled the scent a skunk leaves behind? How many of signs of wildlife can you find? Check them off.

An animal track: \_\_\_ A strong odor: \_\_\_ Scat: \_\_\_ Snake skin: \_\_\_  
Birds calling: \_\_\_ Fur or feathers: \_\_\_

### Discovery Point 3

Plants that don't grow near the river must find other ways to survive the dry season. Look closely at the plants on the slope to the right of the trail. These plants are part of a community of plants called *coastal sage scrub*.

Many of the plants found in coastal sage scrub were very important to the Kumeyaay Indians who lived in this area for thousands of years. The plants were used for food, medicine, and even to purify and bless the houses.

Can you find these plants on the slope along the trail? Look at their leaves. Are they sticky? Do they have short hairs? These adaptations allow the plants to gather moisture from the air and hold it inside the leaves for the plants to use.



Flat-top Buckwheat



White Sage



California Sagebrush

### Discovery Point 4

Compare the plants in the pine tree farm on your left with the natural area on your right. The plants in the pine tree farm are all the same size, shape, age and color. The natural area contains plants that are different sizes, shapes, ages and colors. The plants in the tree farm grow here because humans planted and care for them. They would not survive if humans didn't water them. The plants in the natural area are growing here because they are adapted to live in an area with only seasonal rainfall.



California Gnatcatcher

The animal life found in an area is dependent on the plants which grow there. Plants can be a direct source of food, or they can provide food to wildlife indirectly through predator/prey relationships. For example, mule deer feed directly on the fresh green shoots of plants. Bobcats, on the other hand, do not eat plants,

but instead eat rabbits and mice that survive by eating plants. The food chain connects plants and animals to their selected habitat.

A special group of birds live in coastal sage scrub habitat. One very important bird is the California gnatcatcher, a little gray bird with a black cap and dark tail. You may not see it, but it is usually easy to hear. Stop and listen. Do you hear the sound of a small kitten mewling? That is a gnatcatcher. The California gnatcatcher is in danger of becoming extinct. To prevent this, it is important to preserve areas of coastal sage scrub so that gnatcatchers will always have a place to live.

### Discovery Point 5

When exploring a riparian woodland be on the look out for poison oak. Shady, damp areas are the perfect conditions for the growth of poison oak. Check out the picture to make sure that you can

identify this plant.

Poison oak can grow as a small bush, a single plant, or a vine. The leaves look a lot like an oak leaf even though the plant is not related to an oak. The leaves are usually divided into three leaflets. In spring, the leaves are bright green and oily, but in the fall or early winter the leaves may be red or yellow. The oily chemical on the poison oak can cause a painful, itchy red rash in most people so be sure to stay on the trail to avoid this plant.



Poison oak is important to wildlife. The plant and its berries provide food for deer, birds, mice and wood rats, and the thick plant growth provides shelter for smaller animals.

### Discovery Point 6

Snakes and lizards live in this area, so always be alert. You may see a rattlesnake or more likely an alligator lizard. On very rare occasions, you might even encounter a San Diego horned lizard. You should never disturb or pick up any of these creatures. They are all very important to the natural ecosystem.

Here are some of the snakes and lizards that live in this area:



San Diego Horned Lizard



Red Diamond Rattlesnake

Yes, there are rattlesnakes in the area. Rattlesnakes can often be found in the natural areas around San Diego, but if you stay on the trail your chances of meeting a snake are very low. You should never put your hands or feet in rocky areas or under bushes, because if a snake is in the area, that is the kind of place where one might be hiding.

Rattlesnakes can be dangerous if you get too close, but they are also very interesting. They play an important role in our environment, because they eat large numbers of mice, rats and other rodents. They should not be disturbed or killed if they are found in natural areas.

Rattlesnakes get their name from the rattles on their tails. They are the only snakes with rattles. The rattlesnake uses its rattle to warn people and other animals to stay away. They only strike humans when they are alarmed or surprised. So if you see one on the trail, don't panic, stay on the trail and slowly move out of its way.

### Discovery Point 7

Look at the big boulders around you. These are a type of rock called gabbro. Gabbro rock is formed by volcanic action deep under the surface of the earth. Geologic forces have brought these rocks to the surface. As the rocks weather, very small pieces of the rock are washed off the slopes by rain and into the San Dieguito River. The river carries these particles, which we call sand, downstream. This is the process that formed our beautiful beaches.

### Discovery Point 8

Isn't this a beautiful place? What do you think is most attractive, interesting or inspiring about what you can see?

*For those who elect the 1.5-mile hike option, this is your turn around point. Pick up the trail guide descriptions again when you reach post number 11, which will be on your right side as you travel west.*

### Discovery Point 9

The San Pasqual Valley below you is an "agricultural preserve". It is used for farming because the soil is very good for growing crops. Why do you think that is? A river carries nutrients and sediment in its waters. When the river floods from time to time the nutrients and sediment are deposited onto the floodplain. The floodplain is low lying land along a river channel. Most of the San Pasqual Valley is in a floodplain. The farm that you can see from this spot relies on the river deposits to keep the soil healthy and full of nutrients. These nutrients are then passed on to the crops that are grown here.

### Discovery Point 10

You might not see a wood rat, or even its tracks. But, if you look along the trail and see a big pile of neatly stacked sticks and twigs, you will probably have discovered the home of wood rat. These are not the same kind of rats that live wherever people are. Wood rats live in natural areas and eat the leaves and seeds of native plants. Wood rats were a favorite food of the Kumeyaay, who ground them up and cooked them as a kind of wood rat mush.



### Discovery Point 11

If you were to bring your children here in 20 years, what would you like to see? Lots of houses and schools? A shopping center? Or would you like to see it look just like it does today?

### Discovery Point 12

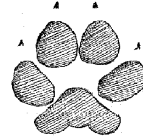
In San Diego County, oak, sycamore and willow trees are found along stream corridors. This is called riparian woodland habitat. Sometimes humans have tried to control the flow of water by removing the plants and creating ditches and canals. Now many people are working to restore (replant) part of the rivers and streams that had been damaged by past activities. Restoration of riparian areas is very important because many endangered birds, reptiles and amphibians can only survive in these riparian woodlands.

### Discovery Point 13

If you are lucky, you may find some animal tracks on or near the trail. Finding animal tracks is a good way to discover what mammals live in an area. Here are just a few of the tracks that you might see.



Bobcat



Coyote



Raccoon



Deer

Even if you don't see any tracks here, it is always fun to look for tracks whenever you are out on a trail.

### Discovery Point 14

Beyond the lake on the east side of Interstate 15, you can see a rock-covered hill. This is the site of a battle during the Mexican American War. On December 7, 1846, Gen. Kearny's army of Americans was attacked by Gen. Picos' army of Californios. The Americans fled to the top of the hill, and were forced to stay there several days until they were rescued. When they ran out of food, they ate some of their mules, so that hill is now called Mule Hill. For more information about the events of the war in San Pasqual Valley, visit the San Pasqual Battlefield State Visitor's Center.

### Discovery Point 15

Look out over the lake and trees for birds. You may see flocking birds flying in formation or single birds hunting or flying over the area. A bird called a white-tailed kite can often be seen in this area. The kite is a white bird with black shoulder patches. A kite is easily identified, even from a distance, by its distinct flight while hunting. This bird will fly over an area and upon spotting prey will hover in one place. It hovers by turning its body and rapidly beating its wings. When it has a good sight on its prey, it dives down to grab its lunch.

Do you see any other large birds of prey? Hawks, falcons, and on very rare occasions, golden eagles, have been seen in this area.

## Ruth Merrill Children's Interpretive Walk

Welcome to the Ruth Merrill Children's Interpretive Walk! This interpretive walk is 1.5 miles round trip. There is also a 2-mile option for those who want to learn more about the area. This is not a loop trail. You will travel out and back on the same path. As you begin the walk, look for numbered posts along the right side of the trail. Each numbered post is a Discovery Point. Each of the Discovery Points is explained on this flyer. When you reach the turn around spot and begin to walk back toward the trailhead, watch for Discovery Points on the north side of the trail.

The Children's Interpretive Walk is dedicated to Ruth Merrill, who contributed greatly to the preservation of open space through her dedicated volunteer work with the San Dieguito River Valley Land Conservancy and who worked for the betterment of children around the world through her volunteer efforts at UNICEF. The Children's Interpretive Walk was dedicated on April 24, 1999.

The Children's Interpretive Walk was created by the San Dieguito River Park Joint Powers Authority (JPA). The JPA was formed by the County of San Diego and the Cities of Del Mar, Escondido, Poway, Solana Beach and San Diego to create a greenway and natural open space park in the San Dieguito River Valley that will protect the valley's unique resources while providing compatible recreational and educational opportunities for the San Diego region, including a trail for hikers, bicyclists and equestrians extending 55 miles from the ocean at Del Mar to the river's source on Volcan Mountain.

*Children's Interpretive Walk Brochures, with more detailed information and illustrations, are available from the San Dieguito River Park Office.*

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