

# WELCOME TO THE CACTUS LOOP NATURE TRAIL

Anza-Borrego Desert State Park® is a land of extremes offering a climate harsh to plants, animals, and visitors alike.

With extreme changes in temperature and very little precipitation, it seems unlikely that anything could survive here. Yet many desert plants not only survive here, they thrive.

Discover their strategies as you walk this short but steep, rocky loop trail.

## PLEASE

Remember to carry plenty of water!

### 1. HUMMINGBIRD BUSH

Like many other plants of the desert, this *chuparosa* remains dormant for most of the year. To limit water loss, the shrub drops its leaves during dry months.

In the spring, hummingbirds seek out the chuparosa's long tubular red blossoms. Both the Anna's and the smaller Costa's hummingbirds are year-round residents of Anza-Borrego Desert State Park®.

These amazing birds are only three inches long and are able to hover and even fly backwards. Listen for the hummingbird's clicking and squeaking call.



### 2. TINY LEAVES

Look for the hook-shaped thorns along the branches of this *catclaw* shrub. Can you see how it earned its name? Other nicknames for this plant are "tear blanket" and the "wait-a-minute bush."

Notice the tiny leaves. Small leaves help prevent water loss for many desert shrubs. Its thorny branches provide refuge for many desert birds, including the small verdin.

### 3. OILY COATINGS

The pungent odor of the creosote bush after a rainfall prompted the Spanish explorers to call it "hediondilla," which means "little stinker." We call it *creosote* and it's the most common perennial plant in the deserts of California.

Look at the oily coatings on the creosote's leaves. This protects the plant from drying up. In fact, even in the hot, dry, desert it has leaves year-round.

### 4. SPINES OR NO SPINES?

You may not see the spines on this cactus, but trust us, they are there! This apparent lack of spines and the flat, rounded shape of its pads make the *beavertail cactus* easy to identify. The dark spots on the pads contain bunches of tiny, tiny, spines. Too small for tweezers use, if you get these spines in your skin you may need to remove them with tape or glue.

Springtime hikers should watch for the striking magenta flowers that appear along the upper edge of each pad.

### 5. CACTUS NEIGHBOR

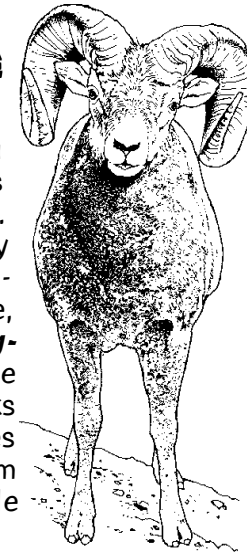
Although the *ocotillo* may have thorns, it is not a cactus. After a rain the shrub produces delicate green leaves, but they are short-lived. In dry periods, the ocotillo drops all its leaves, making the dormant plant appear to be nothing more than a lifeless bundle of twigs.

In springtime, watch for stems tipped with brilliant red blossoms. Because it grows extremely slowly, the tallest ocotillos may be hundreds of years old.

### 6.

### ADAPTABLE ANIMAL

Rising above you to the north is Pinyon Ridge. Look carefully among the boulders for the rare, *Peninsular bighorn sheep*. The treacherous rocks and steep slopes pose no problem for the nimble sheep.



From high vantage points, a bighorn can easily spot its predators. Given enough warning, the sheep can escape a mountain lion by sprinting across and up the rough terrain. The bighorn sheep browse on many of the local shrubs. How do you think they eat the spiny cactus plants?

### 7. PAINTED ROCKS

The rust-colored stain covering these rocks is known as *desert varnish*. This mysterious coating appears on rocks after thousands of years of exposure to the desert.

It's not clear exactly how it forms, but we believe microscopic bacteria living on the rocks absorb manganese and iron oxide causing them to become blackish or reddish. Often they will cement tiny particles of clay onto themselves to keep from drying out, adding a brownish hue.

Watch for desert varnish throughout America's western deserts.

### 8. DOES IT REALLY JUMP?

The *teddy bear* or *jumping cholla* (pronounced "choy-ah") gets its name from the way that it reproduces. Notice the segments of the cholla scattered on the ground. When the segments drop off, they take root and grow into new plants.

Often these segments hitch rides on unsuspecting wildlife or people who accidentally brush against the cholla. The joints attach so easily to a host that they seem to "jump" from the plant.

If you've ever had a close encounter with cholla, you'll remember how painful the spines are. Tiny barbs on each spine make it hard to remove them from our skin. Be careful not to touch one of these "teddy bears!"

# CACTUS LOOP TRAIL



See how plants survive on this steep, rocky, one-mile loop trail.

## 9. WATER AT WORK

Here in the Colorado Desert of Anza-Borrego, an average of four to six inches of rain falls annually. In some years, the park receives less than two inches of rain!

Amazingly, water is still a powerful force in shaping the landscape. **Flash floods** move massive amounts of material and are continuously reshaping the desert.

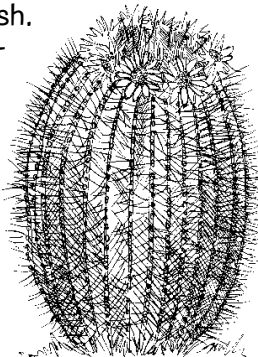
Plants that grow in the washes, like the one below, must adapt to the floods that scour the soil and sometimes uproot them. Some, like the smoke tree, need floods to scour their seeds before they will germinate. Do you recognize any of the plants below?

## 10. THE AMAZING EXPANDING PLANT

Is this **barrel cactus** fat or thin? After a rain, this amazing cactus can hold up to 90% of its weight in water. Its accordion shape allows it to swell as it absorbs water after a rain shower. By storing moisture when it can, the barrel cactus survives months without rain.

Peninsular bighorn sheep sometimes eat barrel cactus. With their horns, they break open the top of the cactus and eat the juicy flesh.

Even though the cactus contains moisture, it's too alkaline for us to drink. In fact, drinking from a barrel cactus may make you thirstier than you were to begin with!



## 11. HAIRY LEAVES

The leaves of the **brittlebush** are powdery white. Look closely and you'll see the insulating hairs that cause this. These hairs make shade for the plant and help the leaves retain their moisture. During hot dry times, this covering of hairs is dense, while in cool, rainy months, it may be sparse.

A member of the sunflower family, the brittlebush sprouts bright yellow flowers in the spring. During the hot summers, the leaves shrink or drop off. Then the flower stalks become dry and brittle, giving the plant its name.

## 12. DESERT BEAUTY

Often found in clusters, the **hedgehog cactus** grows up to a foot high. It's also called a "calico cactus" because of its multi-colored spines. Like other cacti, the hedgehog's spines are actually modified leaves that create needed shade for the plant while deterring potential browsers.

This hostile-looking plant is a favorite of flower lovers, producing showy purplish-red flowers in the late spring.

## 13. CENTURY PLANT

Another plant you'll find growing in clusters is the **agave** or "century plant." Underground root crowns send up new sprouts continually. Their thick leaves store water. Eventually, when the plant reaches a critical size and weight, it sends up a flower stalk. These stalks shoot up quickly and grow to ten or more feet tall. Each plant flowers only once, usually when it is fifty, sixty or more years old. After flowering, the agave dies.

## 14. MILLIONS OF HOOKS

Last, but not least, is the tiny **fishhook cactus**. Did you find it there, in front of the number post? This cactus grows along the coast from San Diego to Mexico and you'll also find it here on the western edge of Anza-Borrego Desert State Park.

With red-tipped, hooked spines, it grows best in rocky areas. Tiny, solitary bees will pollinate its flowers in late spring. Later, from these buds will emerge long, bright tubular fruits.

We hope you've enjoyed this glimpse into the strategies plants use to survive and even thrive in the extreme climate of Anza-Borrego Desert State Park®.

Please keep this brochure as a souvenir or return it to the box for others to use.



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