1 WELCOME

Welcome to the Elephant Tree Trail. Each of the plants you'll meet along this trail is a survivor.

The ability to adapt as surroundings change is something that means the difference between life and death for desert plant species. For centuries, these desert life forms have adapted to a climate that continues to get hotter and drier.

Find out how they do it as you walk this easy, one-mile trail. For your own survival, bring plenty of water, hats and sunscreen as there is little shade along this path.

2 TINY LEAVES BEAT THE HEAT

This catclaw plant, like most desert plants, has tiny leaves. Leaves make food for the plant but also give off moisture. By keeping leaf size to a minimum, desert plants retain as much moisture as possible.

Can you find the desert mistletoe growing on this catclaw? One way to survive is to sponge off others. This parasite plant steals water and nutrients from the catclaw.

3 OLDEST LIVING PLANT

Imagine lasting two years without a drop of water or growing new sprouts that keep your genes alive for 11,000 years! For a Creosote Bush like this one, it's no problem. How do they do it?

Not only does the creosote have small leaves, but they are covered with oil. This protects against moisture loss and radiation, just as sunscreen might protect you.

4 SEASONAL LEAVES

Some desert plants like this desert lavender change their leaves the way you might change your wardrobe for the season.

In dry times, the lavender's leaves are small, thick and hairy. The hairs shade the leaf, and prevent moisture loss to wind and sun.

When the soil is moist, the plant grows larger, thin leaves with few hairs. Sunshine gets through the hairs and the plant can photosynthesize —absorbing sunshine and carbon dioxide to make stored energy (food).

What do this Desert Lavender's leaves tell you about recent weather patterns?

5 IS IT ALIVE?

Did you choose light-colored clothing for your desert hike today? Plants like this indigo bush developed light-colored bark to reflect the sun's rays.

Indigo bush grows in desert washes because special nodes on its roots capture nitrogen from the air. Even in poor soil (like sand) its nitrogen needs are self-met.

If this bush looks life-less, don't worry. It's just waiting for the next rainy period before it grows new leaves.

6 SUPER COMPETITOR

If it's not springtime, it should be easy to guess how the brittlebush got its name. After creating a bright yellow umbrella of flowers, the seeds pop off and brittle stalks are left behind.

Brittlebush has another trick that makes it a master survivor. When it rains, chemicals wash off its leaves into the ground below. These chemicals keep other plants from sprouting nearby and competing for water.

7 LIVING SCULPTURE

If you could watch this ocotillo for a full year, you'd see it drop its leaves and grow new ones up to seven times. It's just one way this desert shrub balances the need for leaves (photosynthesis) and the need to protect against moisture loss.

You're standing over roots stretching from this ocotillo. Because its roots are shallow and far-reaching, it can absorb lots of water the minute it rains. Then, only three days later it's grown new, full-sized leaves!

Like many desert plants, the ocotillo is slow growing and long-lived. Reaching maturity at 60 to 100 years, it may live to a ripe old 200.

8 SOME LIKE IT HOT

This deep-blue flowered beauty is queen of the desert wash. Designed for a life of sand and sun, the Smoke Tree does it's best photosynthesizing when its 102°F!

Smoke tree seeds need a good tumble in a flash flood before they'll germinate. Sprouting in nice, moist sand, the seedlings produce big green "baby" leaves that help them capture energy and get a quick start on growth.

9 The Elephant

You're looking at the Sonoran Desert elephant. elephant tree, that is. Anza-Borrego is the only place in California where this rare plant grows.

Like its pachyderm namesake, it stores water in its trunk (and lower branches). It even bleeds when injured: a fragrant, gummy sap that is. Lastly, it grows to elephantine size, usually six to ten feet tall.

This elephant is the last of its herd, likely living at the very edge of its climate zone. More elephant trees are found on the slopes southwest of here and in other areas of the park.

10 Cactus Garden

From here you can see five different cactus species. Can you find them? The **barrel** and **fishook** cacti are both torpedo-shaped. The fishhook is usually tiny and its spines have little hooks.

The **prickly pear** has flat pads with spines poking out in clusters. Lastly, there are two types of **cholla** (choy-ah) cactus here. Cholla have segmented branches covered with clusters of spines.

Watch for more cactus along the trail.

11 Desert Survivor

If this cholla could talk, it might brag to you about all its great adaptations. Storing water in its trunk and limbs, it's a poster child for desert survival.

Spines create shade and act as a wind break. A waxy coating over the plant's stems prevent just about all moisture from escaping. It can metabolize so slowly that it looks dead, but springs to life with the briefest of showers.

12 It's Alive

Without stepping on it, notice dark patches on the soil around you. This soil is alive! This living soil crust is made up of tiny bacteria, algae, mosses and lichens.

Loose rock particles are bound together by this living crust. This helps keep wind and water from blowing and washing the soil away.

This living soil crust also converts nitrogen into a form that plants can use. It captures and stores moisture for plant's use and adds organic material to the soil. Biological soil crusts are a fragile yet important part of the desert ecosystem.

13 Amazing Adaptations

Along this nature trail, you've had a chance to meet some of the desert's most amazing plants and witness their adaptations for survival.

As you have seen, each plant has evolved strategies for getting water, conserving water and tolerating drought. By adapting to meet the demands of the environment, these plants are not only surviving but THRIVING.

As you continue your visit, watch for these adaptations among plants throughout the Anza-Borrego Desert State Park.

Anza-Borrego Desert State Park

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Nature Trail Guide

The Elephant Tree Trail

See how desert plants survive on this easy one-mile trail.