

# GARDENING WITH NATIVE DESERT PLANTS: A HOW-TO BOOKLET



ABDSP Botany Society  
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## INTRODUCTION

First let's clarify what is meant by "native desert plants". This booklet is directed towards people who live in Borrego Springs or neighboring desert communities such as Ocotillo Wells, Shelter Valley, Ranchita, Canebroke, and Salton City. But this is a subset of a larger area known as the Lower Colorado Desert that stretches as far as Palm Springs to the north, Yuma to the east, and even Mexicali, Baja California, Mexico, to the south. The Lower Colorado is, in turn, part of the vast Sonoran Desert that encompasses most of Arizona and a large part of northern Mexico. So, these gardening principles can be applied over a large area of the desert, even though our focus is on a small slice of it.

Another way to look at "native" plants is simply to think of them as wild plants. They grow very happily in the most remote places, with absolutely no assistance from people. The only water they get is from rainfall. Their only protection from pests is whatever they provide for themselves. The only fertilizer they get is from their own minimal leaf-drop and some occasional animal scat. It should be apparent that gardening with these plants is actually restoration of the vegetation that once grew where our houses now sit.

Gardening in general is an attempt to create a micro-environment that replicates what plants are adapted to in their native setting. In our home gardens we strive to establish a micro-geography and micro-climate to give our selected plants the best chance of success. Even for plants that are "native" to California or to the southern California deserts, there is considerable variation in local conditions. Compare a plant that grows among boulders at the top of Whale Peak with a plant that grows in pure sand in Blair Valley, or another plant that grows in saline lake bed deposits next to the Salton Sea.

Here's the point - If you want to grow any plant, you have to know where it comes from in its original, wild environment so that you can understand what it needs in order to live. Then you need to try to recreate that kind of environment in your garden.

We're somewhat limited in our ability to create micro-geography in the garden. We can't change our latitude or elevation. All we can do is modify the soil in which we place our plants, their sun exposure, the amount of water they get and how they get it (including humidity), and a handful of other factors. We have to make the best use of these factors that are under our control to create conditions suitable for the plants we have selected. The foregoing is one of the key arguments for growing plants that are native to your general area. With native plants, you are already in the right ballpark. All you have to do is fine tune the details.

The term "native" can be defined a little differently by different people. In regard to these plants, it comes back to the distinction I made above between the Anza-Borrego, the Lower Colorado, and the Sonoran Deserts. In the narrowest sense, one could say that plants native to Anza-Borrego are only those found within the confines of the State Park. However, we don't want to be quite that narrow, so we have included a few plants that are from other parts of the Sonoran Desert, as well as a few Mojave Desert species. It is worth noting that many species that we think of as "local" or "ours" are also common in Riverside, San Bernardino and Imperial Counties, as well as Arizona, northern mainland Mexico, and Baja.

### **What Do These Plants Look Like?**

We included one or two photos of each plant to give you an idea of what they look like. If you would like to see more photos, go to [Calflora.org](http://Calflora.org) and you will see a place where

you can type in the plant name, either common name or scientific name. It will take you to a page that gives you a map of where that plant grows, plus other pertinent info about the plant. Most importantly it will give you photos of the plant taken by expert botanists. Click on any one of the photos and it will take you to a separate web site called [Calphotos.berkeley.edu](http://Calphotos.berkeley.edu) where you will see multiple photos of the plant.

### **A Note About Scientific Names**

Lots of people hate the Latin names for plants, but they exist and are used by botanists for very good reasons. There can be problems with common names because people are just too loose with them. For example, the local slender-stemmed cactus *Cylindropuntia ramosissima* is sometimes referred to as Pencil Cholla or Pencil Cactus. Unfortunately, there are numerous other cacti and non-cactus succulents that are also called the same thing. If someone tells you they have a Pencil Cactus, do they really have the native species or do they actually have the African Euphorbia 'Sticks of Fire'? The only way to really know exactly what species we are talking about is to use the Latin scientific names consistently and correctly. For that reason, I have used the Latin names in this booklet. Common names are included to help you get cross-referenced, but I would encourage you to work on getting beyond common names as much as you can.

### **Dirt, Soil, Earth, etc.**

Many people make the mistake of thinking that all plants want the same thing, which is rich soil with a lot of nutrients and a lot of moisture-holding stuff. That's true if you are growing vegetables, but native desert plants are almost the exact opposite. This is one reason why some people think native plants are hard to grow. What they need is so different from typical gardening advice.

Native desert plants have evolved over thousands of years to be adapted to the soils found in the desert – sandy, very fast draining and low in nutrients. Desert soils are also frequently on the alkaline side in terms of Ph. To try growing native plants in a “normal” garden soil that is slow draining, full of organic matter, high in nutrients, and slightly acidic is like trying to feed milkshakes to a hummingbird. It just won't work. It won't hurt to add a little bit of potting soil or some other amendment to your native soil if you want to, just don't go overboard. Likewise, a tiny amount of a slow-release fertilizer once a year won't hurt your plants. Just remember that the plants don't really need it, and you will save money by not buying a lot of stuff you don't need.

To determine the right soil for your plants, look once more to the environment where the plant is found in the wild. If it is usually found growing among boulders up on a slope, then your soil should be mostly decomposed granite with some large rocks, and you should try to elevate the plant if you can. On the other hand, if your plant is usually found on a gently sloping alluvial fan, you need deep sand. The same approach applies to plants found in washes, perennial streams, gypsum deposits, and so on. The bottom line is to understand the conditions in which the plant normally grows in the wild and try to copy that.

A note about rocks – they are very helpful to plants in several ways. Subsurface rocks help prevent sandy soil from becoming too compacted, so drainage stays fast. Surface rocks, especially large ones, channel rainwater down to their base and help retain moisture underneath them. Many plants take advantage of this. The mass of a large rock also helps moderate soil temperature so roots can stay cooler. Shade cast by a

large boulder is important for a number of plants that could not otherwise tolerate the intense heat and sunlight.

## **Water**

Even desert plants must have water. The question is how much and how often. If we look at how and when wild plants get their water, we see that the majority of it comes from large winter storms, with sporadic lighter showers in fall and spring. Lately we have been getting more heavy summer rain, but that's a new development and not what our local flora is used to. When winter storms come to the desert, they have to be powerful enough to make it over the mountains, which usually means a real drenching and fairly cold temperatures. This kind of rain saturates the soil to a depth of several feet. (If the water percolates deep enough, the bulbs of desert lily will put up flower stalks.) Note also that these storms come during the shortest days of the year. Plants are highly sensitive to the amount of daylight they receive, known as "photoperiod." To sum up, our native plants know that cool days with a short photoperiod are their prime growth period, and they are ready to make maximum use of as much water they can get during this time.

Translating this into a garden irrigation program means that you should water heavily during cool or cold weather, really soaking the soil, as often as once a week in December and January. You need to soak not just right underneath the plants but all around them too, the way a rainstorm does it, so that all the outlying roots have access to water. Your plants will view this as a heavy rainfall winter and they'll love it. Outside of those two months, your irrigation plan should become more sporadic and infrequent. If there is cool/cold weather in November or February, that can be a good time to irrigate, but once or twice a month rather than weekly. From March through October your irrigation should imitate the natural rainfall pattern, which is sporadic, perhaps once a month, and not as deep. Your plants can't do as much growing with this water. Its purpose is to keep the plant alive through the long, hot, dry summer.

The foregoing is applicable to most plants in our deserts, but not all of them. There are some that have come into our region from areas that have more summer monsoonal rain, such as Arizona. Examples of this are the Palo Verde trees, Ironwood, Desert Willow, Ocotillo, and a few others. One of our local cacti, *Mammillaria tetrancistra*, only flowers after summer rain. These plants want a big drink of water once or twice during the summer, so soak them thoroughly on a cloudy day. They will respond by leafing out, blooming, and showing a lot of new growth. Other plants that are oriented more towards winter rains also appreciate a summer soaking, but don't expect them to respond as enthusiastically.

Do you water in the morning or evening? It doesn't really matter. There are proponents on each side. Rain can come at any time of day, and the plants are not that picky. The important thing is to pick a cloudy, cool day when it feels like it ought to rain but it doesn't. What do you do if it really does rain? Pay attention to how much rain actually falls on your garden. Dig down to see how deep it is penetrating. If it isn't getting at least a foot deep, you might want to supplement the rain with irrigation to make sure everything is getting thoroughly soaked.

While the above is a general approach to watering, you must also take into consideration plants with special needs. Some popular garden plants, such as *Washingtonia filifera* (California fan Palm) and *Chilopsis linearis* (Desert Willow), are native to riparian (stream) ecosystems. You'll see them in areas like Palm Canyon, very

close to the running water. These plants obviously need much more water than others. Similarly, *Calliandra eriophylla* (Fairyduster) and *Vitis girdiana* (Desert Wild Grape) are found in more moist locations such as stream banks or around springs. These also need somewhat more water. The discussion of each species in this booklet will highlight any special watering considerations. Plants in containers need more water in general because they don't have as much room for root growth.

This approach to irrigation is radically different from what most people do. Those who have automatic sprinkler systems generally set them to run for a set number of minutes, so many times per week, which is probably necessary for non-native plants. But native plants may be killed by this kind of irrigation which is too frequent and too shallow. At the very least, they won't perform up to their potential. If you want to grow native desert plants, you need to adjust your thinking about water and start thinking like an Ocotillo.

### **Sunlight**

In the desert, sunlight is a mixed blessing. It's necessary for photosynthesis, but for most plants the amount of sunlight they get is in excess of what they can actually use. Many native plants have evolved hairs, spines, light colored foliage, and other features that provide them a little relief from the intense solar radiation. Plants also get some benefit from the shade of other plants, from boulders, and from the topography where they are located. For example, *Washingtonia filifera*, being quite tall in maturity, would normally find its head in full sun all day long. However, in the canyons where it is found there is both morning and afternoon shade due to the canyon walls.

These kinds of features can be replicated in a garden by using the house itself as well as eaves, overhangs and any other structures. Think about where the sun and shade can be found in your garden at different times of the day and different seasons. In most cases your most tender plants will do best on the east side of a structure and close to it, where they would get morning sun and afternoon shade. The south side is good for most desert plants, where they will get winter sun during their prime growth period. The north side of structures is usually thought of as shady, but this isn't always true. In summer the sun's path tracks quite far to the north, so plants on the north side may need a trellis or some other source of shade for the summer months. The west side is definitely the most sun-blasted all year long, unless you have a trellis, wall, or something else that blocks the afternoon radiation. When you get out away from the shadow of structures it's a different story. You need to either create shade structures or use larger plants to shade smaller ones.

You may find it necessary to cover some plants during the summer to prevent sunburn. Though wild plants don't need this, they often have the help of a "nurse plant", a tree or large shrub that shades a smaller one. It isn't always possible to arrange for a nurse plant in a garden, so shade cloth can be used instead. Just be sure that it is well secured so that it isn't blown away by a summer wind.

### **Deciduous and Dormant**

Among the adaptations that desert plants possess are the ability to drop leaves when it furthers survival, and the ability to go completely dormant at times. Most of our deciduous plants drop their leaves in summer in response to the lack of water, but a few are winter deciduous and drop their leaves in response to cold weather. Dormancy is a complete shutting down of all functions, allowing a plant to evade the hottest, driest season.

The key point here is to not assume your plant is dead simply because all its leaves have turned brown or dropped off. There are many examples of plants that appear to be dead, only to spring back to life as soon as conditions become favorable. Remember that one of the things the desert teaches to every living thing is patience.

### **Insects and Other Pests**

The past attitude towards insects in the garden was commonly one of zero tolerance. Fortunately that attitude is changing, and many people are now interested in having an ecologically-balanced garden. This means having a tolerance for insects of all types, not just the nice ones. A pesticide that helps you get rid of aphids may also kill the bees and butterflies that you see as beneficial pollinators. The only way to keep a garden safe for beneficial insects is to allow all insects to coexist. In an ecologically-balanced garden, the predatory insects (like ladybugs) will eat the plant eaters (like aphids), and caterpillars will grow up to be butterflies. You will have holes in the leaves of some plants, but you will also have a more intact, functional mini-ecosystem.

Not all pests are invertebrates. Rabbits, gophers and ground squirrels can also cause big problems for a garden. The best way to deal with them is a multi-pronged approach.

- Determine which plants they most like to eat
- Either don't plant those plants, or put a wire cage around them, especially when they are small
- Don't attract these pests by putting out food scraps, keeping pet food outside, or otherwise encouraging them.
- Hope that coyotes and snakes will keep these pests in check

Some rodents, such as kangaroo rats and antelope ground squirrels, are not at all harmful to the garden. They are primarily seed eaters and won't bother the foliage or flowers. Lizards are also not harmful. They eat ants and other invertebrates. Desert Iguanas eat Creosotebush. Having these critters move into your garden is a sign that you have done a really good job.

### **Cleaning Up, Pruning, etc.**

Many garden authorities will tell you that you need to keep your garden cleaned up to eliminate places for pests to hide out and maybe procreate. They suggest you rake up all the leaves and other organic debris and dispose of it. Then you are supposed to buy some kind of commercial mulch (usually ground up tree bark) to spread around your plants. This gives you a nice, clean look, but it isn't what native plants want. Going back to the discussion of soil, wild desert plants typically have a thin layer of their own leaf litter on the ground underneath them. As it slowly decomposes, it gives some nutrients back to the plant. In addition, the beneficial insects need places to hide out and procreate. The native leaf litter is where they do it, or in tiny underground burrows. Native desert plants do not need 3 inches of redwood bark, which will merely bury the good insects and alter the soil chemistry to be more acidic. On the other hand, if you have some chopped up leaves/stems/twigs from pruning native plants, don't throw it away. Spread it around your plants in a thin layer.

Pruning is a different story. Most desert trees and shrubs benefit from annual pruning, even though they don't get it in the wild. Pruning does two things – it improves the appearance and it stimulates growth. The general approach to pruning native plants is pretty much the same as for any other garden trees or shrubs. You can prune out any dead branches. Removing smaller branches is better than removing large branches.

Remember to maintain symmetry as you prune. Tip pruning stimulates the growth of more side branches and thus more dense growth. Cut areas do not need to be painted over or treated. Don't remove more than about 15% of the total tree/shrub at any one time. Don't prune in spring when birds are nesting. Fall is a better time.

The one exception to pruning is *Washingtonia filifera*. The dried fronds which form a skirt around the trunk are valued by lots of wildlife. Cactus wrens, hooded orioles, roadrunners, bats, snakes and many other critters really appreciate these places to hang out. Most people like to trim the skirt off their palms, and for many non-native palms this makes sense because otherwise the fronds will fall off and make a mess. *Washingtonia filifera* is different because the fronds stay attached to the trunk for a long time. The palms around the Visitor Center are a good example of what they should look like. If you want to have an ecologically-balanced garden, leave the skirt on your palm.

### **When and How to Plant**

If you bought your plants at the Botany Society Plant Sale then you need to plant them right away. November and December are the best months to plant. February is okay, March is borderline, and April is too late. Why? Because your new plants need cooler temperatures, especially at night, and short photoperiod to tell them that it is time to grow. They will use this time mainly to grow roots, and you won't see much change above ground. New plants need as much time in the ground as possible during this season, which is why you should plant earlier rather than later. You will want to keep the soil around the new plant damp but not saturated. Roots can only grow into soil where there is moisture. Rocks around the new plant will help, as well as a wire cage if the plant is tasty to bunnies. Of course, a hard freeze can kill just about any plant, and some are more sensitive than others (such as Elephant Tree). If freezing temperatures are expected, consider covering your new plants at night with a styrofoam cooler or some other type of insulation. Uncover the plant during the daytime. As you probably know from experience, a sub-freezing night is often followed by a clear, sunny 80° day.

Some people will tell you that spring is a better time to plant, and that is probably true for non-native species. Plants from the tropics are more sensitive to winter cold and may have a hard time getting started earlier than about March. Tropical species can also handle late spring to early summer heat if they get tons of water. But for California natives, winter cold and summer drought are normal. As photoperiod gets longer their internal clocks tell them that the hot, dry months are fast approaching, and they begin turn off their growth mechanisms and go into survival mode. If they are summer deciduous they will start dropping leaves, even if they continue to get water. Don't get worried yet. The plant is just doing what it is programmed to do in order to survive the summer. Don't overwater at this time. Stick to your watering schedule that mimics natural rainfall patterns. If you want to put your plants in the ground in spring, go ahead and give it a try. Just remember that they may need more shade and/or more rocks to get off to a good start, and they may look more stressed when summer hits.

If you are putting a plant in a container it can be different because, in theory, a container plant can be moved around. You might be able to get away with container planting in spring if you can put the container in a location where it will get a few hours of morning sun on the foliage but keeping the container itself in shade. That way the roots won't get overheated. This location might need to be adjusted between spring and summer due to the way the sun moves around. If your container is too big to move easily, you need to think very carefully about where you are going to place it, what you are going to plant in it, and how you can protect it from excessive sun and heat.

**About The ABDSP Botany Society**

We are a group of volunteers organized under the auspices of the State Park for the purpose of promoting the conservation of native flora of the Park and surrounding areas. You don't need to know botany to get involved. Join us and learn. Please visit our web site, [anzaborregobotany.org](http://anzaborregobotany.org) to find out more about our public lectures, classes, hikes, and other activities.



***Abutilon palmeri***  
**Indian Mallow**

Family	MALVACEAE (Mallow)
Perennial or annual?	Perennial Shrub
Habitat	Creosotebush Scrub, Desert Transition, Chaparral
Where It's Found	Various locations in ABDSP, such as along Hwy 78, S-2, and several non-desert locations
Normal height/spread	6 ft. X 6 ft.
Flower color & bloom period	Yellow-gold, March through October
Evergreen or Deciduous	Evergreen, but may drop some leaves in drought
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

This plant is a real winner for the desert garden, being beautiful, easy to grow, and blooming most of the year. It performs best after it gets a couple of years old, at which time it will put out abundant flowers that are very popular with bees. The delicate-looking leaves have minute hairs that give it a slightly blue-green color and velvety feel, not prickly. Despite its appearance, it is highly heat and drought tolerant but can be killed by complete lack of water, so give it a shower once or twice during the summer. Afternoon shade is also helpful. The seed heads can be left on the plant to feed small birds, or cut off for a cleaner look. You may get seedlings coming up elsewhere in your garden. Straggly branches can be cut off in late fall or early winter when it is not in flower.



Photo by Don Rideout

***Acalypha californica***  
**California Copperleaf**

Family	EUPHORBIACEAE (Spurge)
Perennial or annual?	Perennial Shrub
Habitat	Creosotebush Scrub, Chaparral, Oak Woodland
Where It's Found	Various locations in ABDSP, such as along Hwy S-2, and numerous non-desert locations
Normal height/spread	3 ft. X 5 ft.
Flower color & bloom period	Pink buds, white flowers (tiny), January through June
Evergreen or Deciduous	Evergreen, but may drop some leaves in drought
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

This plant is not widely seen in the Park, being found primarily in the canyons between Agua Caliente and Bow Willow on the east side of S-2. It will most often be found growing out of the base of a giant boulder that gives it some protection. The flowers are dainty and inconspicuous – the real attraction is the leaves which frequently have a reddish, toothed margin. Try to plant it where you can simulate natural conditions, ie. next to a large rock or up against the foundation of your house. It tends to be slow growing and stays fairly small and compact, so plant it where it won't be overwhelmed by larger shrubs. It should do well in a container if you can keep the roots cool. It doesn't need a lot of water, but total lack of water plus heat will kill it. Give it a shower once or twice during the summer.



Photo by Don Rideout



## ***Asclepias albicans***

### **Coachwhip**

Family	APOCYNACEAE (Milkweed)
Perennial or annual?	Perennial Shrub
Habitat	Creosotebush Scrub
Where It's Found	Numerous locations in ABDSP, Imperial County and southern edge of Joshua Tree NP, especially in protected canyons
Normal height/spread	6 ft. X 3 ft.
Flower color & bloom period	White or Cream, March through June
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

### **Notes/Discussion**

This is a very difficult plant to find in any nursery, and not easy to grow if you do find it. The only place I know to get it Living Desert Museum, and they mostly grow it for their own purposes. It is included in this booklet because so many people ask about it. It is the largest of the local milkweeds, very sculptural, with pale gray/green stems. The flowers are not especially showy in human terms, but the insects love them. We can't give advice on growing this one since we have never been successful ourselves. If anyone is growing this or knows how to propagate it, please get in touch with us.



Photo by Don Rideout

***Asclepias subulata***  
**Rush Milkweed**

Family	APOCYNACEAE (Milkweed)
Perennial or annual?	Perennial Shrub
Habitat	Creosotebush Scrub
Where It's Found	Numerous locations in ABDSP, Imperial County and into Mojave Desert
Normal height/spread	3 ft. X 3 ft.
Flower color & bloom period	Yellow, year-round
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

This is the most common milkweed in our region and a good candidate for the garden. Once established it needs virtually no care. While its water requirement is listed as normal, it is really extremely drought tolerant and can get by on very little water. It flowers essentially all year long and attracts a multitude of insects, including butterflies, tarantula hawks, bees and beetles. All milkweeds have some toxin in them, so don't eat any part of the plant, and wash off any sap that gets on you. This toxin is what makes Monarch butterflies impalatable to birds. The photos below show a Queen butterfly and a tarantula hawk on *Asclepias subulata*.



Photos by Don Rideout



## ***Atriplex hymenelytra***

### **Desert Holly**

Family	CHENOPODIACEAE (Goosefoot)
Perennial or annual?	Perennial Sub-shrub
Habitat	Creosotebush Scrub
Where It's Found	Numerous locations in ABDSP, Imperial County and into Mojave Desert, especially in canyons and washes
Normal height/spread	2 ft. X 2 ft.
Flower color & bloom period	Pinkish, January through April
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

### **Notes/Discussion**

This is another one that is not easy to find in nurseries. However, if you can find it, it isn't difficult to grow. It just wants deep, fairly loose sand with rocks on the surface, like you would find in the bottom of a slot canyon or wash. It can take a lot of sun and heat but probably does best in the garden with afternoon shade. The main appeal is its gray-green to nearly snow-white foliage which is the result of gazillions of minute hairs all over the leaves. In old age it will develop a woody trunk. It's a great accent among greener plants like Jojoba.



California Death Valley Ubehebe plant". Licensed under CC BY-SA 3.0 via Wikimedia Commons-  
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***Bahiopsis parishii***  
**Goldeneye**

Family	ASTERACEAE (Sunflower)
Perennial or annual?	Perennial Shrub
Habitat	Creosotebush Scrub
Where It's Found	Numerous locations in ABDSP, Imperial County and into Mojave Desert
Normal height/spread	3 ft. X 3 ft.
Flower color & bloom period	Yellow ray flowers, orange-gold disk flowers, February through June
Evergreen or Deciduous	Normally evergreen but may shed leaves in summer if it is especially hot and dry
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

The genus *Bahiopsis* was formerly classified as *Viguiera*, and it is also commonly known as Parish's *Viguiera*. The flower is very similar to that of *Encelia* but more golden in color. The leaves are a little smaller than *Encelia*'s and greener due to fewer hairs on the leaves. Its growing requirements are very similar to *Encelia*, so you could plant them together for nice variation in foliage and flower color.



*Viguiera deltoidea* by Stan Shebs. Licensed under CC BY-SA 3.0 via Wikimedia Commons

***Bursera microphylla***  
**Elephant Tree or Torote**

Family	BURSERACEAE
Perennial or annual?	Perennial Tree
Habitat	Creosotebush Scrub
Where It's Found	Scattered locations in ABDSP, such as Elephant Tree Trail and Torote Bowl
Normal height/spread	10 ft. X 15 ft.
Flower color & bloom period	Cream with orange center, June and July
Evergreen or Deciduous	Deciduous. Normally sheds leaves in summer but may leaf out in response to monsoonal rain
Dormancy	Yes, typically summer dormant
Water Requirements	Normal

**Notes/Discussion**

Elephant trees are beautiful, fascinating plants, but they come with some cautions. They are very slow growing. Large specimens are hard to find and very expensive. Smaller specimens are more readily available. Fortunately, small ones do well in a container for many years. Plants in the wild are used to living on very rocky slopes where their roots are squeezed between massive boulders – not much different from being in a small container. But boulders provide a lot of thermal insulation that a clay pot does not, so try to find a way to keep the container, soil and roots out of direct sun and put rocks on top of the soil. Elephant trees must have excellent drainage, whether in a container or in the ground. Too much water kills more Elephant Trees than anything else. If you have one in a container in fast draining, coarse sand, a watering schedule of every 2 weeks is just about right. Elephant trees are also cold sensitive, and freezing temperatures are the second leading cause of mortality. They are far more common in Baja in areas where there is less chance of a freeze. The Riverside County Line is pretty much the northern limit of the species, for this reason. So if you have an Elephant tree in a container, be prepared to bring it indoors or give it some kind of protection on the coldest winter nights. If your Elephant Tree is in the ground, be prepared to cover it overnight. This should only be necessary a few nights in December or January.

Even after you have done all these things, your Elephant tree may drop its leaves for no apparent reason and may refuse to leaf out for months at a time, especially in summer. This is not a sign that anything is wrong. It's just the way Elephant trees behave, much like Ocotillos. To them, leaves are an expendable luxury, and simple survival is more important than growth. Whenever anything doesn't seem right, dump the leaves and hunker down. Elephant trees have great water storage capacity in their trunks, limbs and roots. In tough times, they would rather sit there leafless, not losing any water, and living off their reserves. If you give an Elephant tree what it needs, you will be rewarded with periods of uncommon beauty when it leafs out and flowers. The foliage has a great fragrance. Female plants will produce tiny fruits that are prized by birds. It takes pruning well, making a perfect desert bonsai.







## ***Calliandra Californica***

### **Baja Fairyduster**

Family	FABACEAE (Legume)
Perennial or annual?	Perennial Shrub
Habitat	Sonoran Desert region of Baja California
Where It's Found	Scattered locations in ABDSP and Imperial County
Normal height/spread	5 ft. X 5 ft.
Flower color & bloom period	Red, year-round
Evergreen or Deciduous	Normally evergreen but may drop leaves in drought
Dormancy	No
Water Requirements	Normal

#### **Notes/Discussion**

Of the two species of *Calliandra* discussed here, this one is the Baja species, so it is not native to our area. It is included because it is popular with many gardeners and it performs well. It is drought tolerant but blooms in response to rain. It is not picky about where you plant it, and it does not appear to be especially cold sensitive. Hummingbirds love it.



Photo by Don Rideout

***Calliandra eriophylla***  
**Fairyduster**

Family	FABACEAE (Legume)
Perennial or annual?	Perennial Sub-shrub
Habitat	Creosotebush Scrub
Where It's Found	Scattered locations in ABDSP and Imperial County
Normal height/spread	2 ft. X 2 ft.
Flower color & bloom period	Pink, February through April
Evergreen or Deciduous	Normally evergreen but may drop leaves in drought
Dormancy	No
Water Requirements	Needs somewhat more than normal water

**Notes/Discussion**

This is the native species of California, although it also extends into Baja. It is not often seen on casual hikes in ABDSP. It is typically found in more moist locations, such as a stream bank under some Desert Willow trees. There are several documented locations in the canyons south of Hwy. 78 and around the south end of S-2 near Ocotillo. This species doesn't have as lengthy a bloom period as the Baja species, but it does bloom profusely and hummingbirds love it. Afternoon shade is important. It's not as easy to grow as the Baja species, but since it is our native species we want to promote it. If you find the right spot for it and give it enough water, you will be rewarded with delicate, pink flowers that do justice to the name "fairy dusters."



Photo by Don Rideout



## ***Chilopsis linearis***

### **Desert Willow**

Family	BIGNONIACEAE (Begonia)
Perennial or annual?	Perennial Tree
Habitat	Primarily Wetland-Riparian but also found in Creosotebush Scrub and Joshua Tree Scrub
Where It's Found	Ubiquitous in the southern California deserts
Normal height/spread	12 ft. X 12 ft.
Flower color & bloom period	Multi-colored Pink, Purple and White, May - August
Evergreen or Deciduous	Winter deciduous
Dormancy	Winter dormant
Water Requirements	Needs more than normal water

### **Notes/Discussion**

Desert Willow is a tropical genus that found its way to the desert, found conditions it could live with, and has flourished. It is not a true willow – the common name refers to the leaves which resemble those of willows. It is in the Begonia family, which becomes apparent if you see it in flower. It inhabits the stream banks in every canyon that has sufficient water through the summer. This is one that you should plant in spring or summer because it remains dormant until days get longer and warmer. If you plant in winter it will just sit there until March. It also needs lots of water, enough to give the impression of a stream bank. Its growth rate is moderate. Many people don't ever see the flowers because they leave the desert before the bloom starts. Desert Willow makes a great substitute for oleander except that it will be leafless during the winter.



Photo by Don Rideout

***Condea emoryi***  
**Desert Lavender**

Family	LAMIACEAE (Mint)
Perennial or annual?	Perennial Shrub
Habitat	Creosotebush Scrub
Where It's Found	Ubiquitous in ABDSP and Lower Colorado Desert
Normal height/spread	8 ft. X 4 ft.
Flower color & bloom period	Lavender (what else?), January through May
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

This species was formerly classified as *Hyptis emoryi*, and you may know it better by that name. Whatever you call it, this is a “must have” plant for every garden. Very easy to grow, beautiful, with a lovely fragrance. Just plant it and use our recommended “normal” watering, and you can’t go wrong. It takes pruning well, as much or as little as you prefer. Prune in summer if possible to avoid cutting off flowers or developing buds. Very popular with bees. It is evergreen but will drop some leaves in summer.



Photo by Don Rideout



***Encelia farinosa***  
**Brittlebush**

Family	ASTERACEAE (Sunflower)
Perennial or annual?	Perennial Shrub
Habitat	Creosotebush Scrub
Where It's Found	Ubiquitous in the southern California deserts
Normal height/spread	3 ft. X 5 ft.
Flower color & bloom period	Gold disk flowers, yellow ray flowers, January through May
Evergreen or Deciduous	Evergreen but will drop some leaves in summer
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

One of the most common of our desert plants and one of the easiest and best performing to grow in the desert garden. For the most part, you can just plant it and forget it. Once the plant gets established in your garden it will produce tons of seedlings. You can deadhead after flowering is done if you want to. In summer it gets smaller, more pale leaves that do just enough photosynthesis to keep it alive through the drought. Don't worry if it drops almost all its leaves in summer. That's normal. There are some other varieties of brittlebush, namely Rayless Encelia that has only disk flowers, and Encelia actonii which is found locally but is much more common in the Mojave Desert.



Photo by Don Rideout

***Ericameria nauseosa***  
**Rubber Rabbitbrush**

Family	ASTERACEAE (Sunflower)
Perennial or annual?	Perennial Shrub
Habitat	Many habitats
Where It's Found	Ubiquitous in California
Normal height/spread	3 ft. X 3 ft.
Flower color & bloom period	Yellow-gold disk flowers, no ray flowers, July through October
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

This common plant of the Anza-Borrego desert is found across most of the state in desert or mountain areas. You see it everywhere in ABDSP. Formerly called *Chrysothamnus nauseosus*, in case you know it by that name. It has several subspecies and varieties, all looking very similar and all called Rabbitbrush. It is a late bloomer, summer to fall, so many people never see it in full flower when it is most impressive. The rest of the year it can look quite ordinary. No special care needed except that new plants will need to be caged to protect from herbivory.



Photo by Mike Bigelow



***Eriogonum fasciculatum* var. *polifolium***  
**East Mohave Buckwheat**

Family	POLYGONACEAE (Buckwheat)
Perennial or annual?	Perennial Shrub
Habitat	Many desert and mountain habitats
Where It's Found	Higher elevation desert transition
Normal height/spread	3 ft. X 3 ft.
Flower color & bloom period	Pink-white, June through August
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

The species *Eriogonum fasciculatum* is very widespread in California, and there are 4 recognized varieties. This variety, *polifolium*, is the one found in our desert at higher elevations such as Culp Valley and upper Coyote Canyon. It is not normally found as low as Borrego Valley but can be grown there if given some shade, especially in summer. It likes rocky places. It is a late bloomer and the flowers are popular with many insects. Highly recommended if you want to attract pollinators to your garden.



Photo by Mike Bigelow

## ***Ferocactus cylindraceus***

### **Barrel Cactus**

Family	CACTACEAE (Cactus)
Perennial or annual?	Perennial Shrub
Habitat	Creosotebush Scrub and Joshua Tree Woodland
Where It's Found	Ubiquitous in ABDSP and into the Mojave Desert
Normal height/spread	5 ft. X 2 ft.
Flower color & bloom period	Yellow, April-May
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Less than normal water

### **Notes/Discussion**

This is one of the iconic species of our desert, along with Ocotillo and Creosotebush. People plant all sorts of barrel cacti in their gardens, many of them from Mexico and South America, but this is the one that is native here. It's super-easy to grow, but slow like most cacti. Young ones should have afternoon shade, and it's recommended to cover the crown in summer to prevent sunburn. Older established plants can handle the sun better. Put lots of rocks around the base. Be careful not to over-water. Better to plant and ignore. Their voluminous internal water storage means they can go months without any water. They definitely should not get water more than once a month. Cacti in general have widespread, shallow roots, so drip irrigation won't work. If you are going to water a barrel cactus, you need to simulate rain by overhead watering of a large area around the plant, but it doesn't have to go too deep, just 6 inches or so. This is very different from what your other plants need, so don't plant barrel cactus close to thirsty plants like Desert Willow or Fairyduster. Once established, it's best to just let rain do the job, even if it seems insufficient. The crown of flowers in spring is a delight to people and insects. In summer, the fruits are popular with Antelope Ground Squirrels who will climb up the spines to get them.



Photo by Don Rideout



***Fouquieria splendens***  
**Ocotillo**

Family	FOUQUIERIACEAE
Perennial or annual?	Perennial Shrub
Habitat	Creosotebush Scrub
Where It's Found	Ubiquitous in ABDSP and Lower Colorado Desert
Normal height/spread	12 ft. X 8 ft.
Flower color & bloom period	Red, March through July
Evergreen or Deciduous	Drought deciduous
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

The Ocotillo is one of the most distinctive and popular plants in the wild and in gardens. Everybody needs at least one. Not a cactus, it has its own family that is unlike any other plant family on earth. The problem is that they are very slow growing, even slower than cacti. You can buy larger specimens, but these are often bare-root and have been dug up from somewhere – not a practice we like to endorse, and their survival can be iffy. It's better to buy a nursery grown plant in a 5 gal. container with soil. Even if it's a smaller specimen than you want, it's more likely to survive and thrive than one that has been dug up. You need to take the long term view with Ocotillo. As far as watering, everyone seems to have their preferred method. Many people want to keep green leaves on the plant all year long, but that's not necessarily realistic or healthy. This plant is adapted to being dry and leafless a good part of the year. We recommend our "normal" watering regime of simulating rainstorms. When you water, soak the stems because the plant takes in some water directly through the stem, and make sure the soil is soaked at least a foot deep. This mimics a big storm and tells the plant that it is time to leaf out and grow. But don't be discouraged if the plant doesn't leaf out right away.

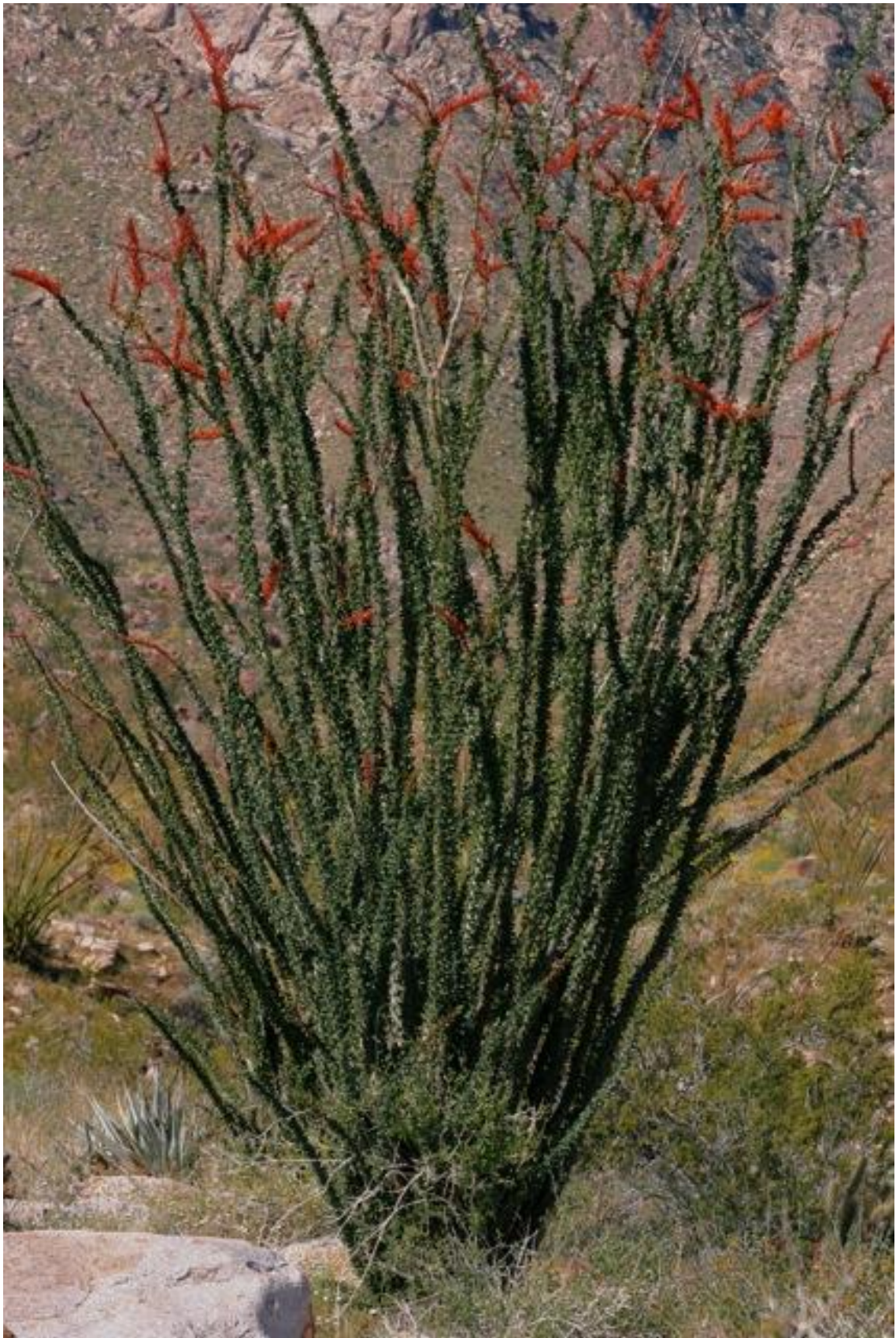


Photo by Mike Bigelow



***Justicia californica***  
**Chuparosa**

Family	ACANTHACEAE (Acanthus)
Perennial or annual?	Perennial Shrub
Habitat	Creosotebush Scrub
Where It's Found	Common in ABDSP and southern Mojave Desert
Normal height/spread	4 ft. X 4 ft.
Flower color & bloom period	Red, March through July
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

The Acanthus family is largely tropical, and this is one of its few native representatives in our region. It is virtually bullet-proof in the garden, responding well to neglect. Once established, it accepts supplemental water but doesn't require it. The tubular red flowers are very popular with hummingbirds, resulting in its common name. Every garden needs 3 of these. There is also a yellow flower version that is sometimes available in nurseries and occasionally pops up in the wild.



Photo by Don Rideout

***Larrea tridentata***  
**Creosotebush**

Family	ZYGOPHYLLACEAE (Caltrop)
Perennial or annual?	Perennial Shrub
Habitat	Creosotebush Scrub (what else?)
Where It's Found	Everywhere in the American Southwest
Normal height/spread	7 ft. X 7 ft.
Flower color & bloom period	Yellow, April-May
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

This is the most common plant in southwestern deserts. It may seem unnecessary to include it in a “how to grow” booklet since it’s hard to not grow them in our area. However, someone occasionally wants to buy some to make a hedge or fill in a gap. This is the ultimate in “plant it and forget about it”. It’s a great substitute for oleander, although it doesn’t get as tall. It retains its dark green leaves even in the most severe drought. It can be pruned or sheared as desired. It produces chemicals which discourage other plants from growing too close to it, so keep that in mind.



Photo by Mike Bigelow



***Mammillaria dioica***  
**Fishhook Cactus**

Family	CACTACEAE (Cactus)
Perennial or annual?	Perennial Sub-shrub
Habitat	Chaparral, Coastal Sage Scrub, Creosote Bush Scrub, Pinyon-Juniper Woodland
Where It's Found	Rocky areas of canyon and slopes
Normal height/spread	12 in. X 6 in.
Flower color & bloom period	White, February through April
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Less than normal

**Notes/Discussion**

Known by many common names, this little cactus is a gem in the wild or in the garden, in the ground or in a container. The delicate little flowers are a real joy, and hummingbirds love them. Surprisingly, this cactus is found outside the desert in places like sea bluffs. So it is tolerant of a variety of climates and soils. Just keep a few things in mind. It is slow growing and never gets very big. What is available from nurseries is generally really small. The usual cause of death is too much water. These guys really don't need much at all. They love the sun, but in the desert you might want to give a young one some afternoon shade, especially in summer. In the desert you usually see them growing out of cracks in huge granite boulders. This means they like their roots cool and protected. There is a closely related species, *Mammillaria tetrancistra*, that is also found in our desert. Although the two species look almost identical, *tetrancistra* is much less common and behaves much differently. You aren't likely to find it for sale anywhere.



Photo by Don Rideout

***Olneya tesota***  
**Ironwood**

Family	FABACEAE (Legume)
Perennial or annual?	Perennial Tree
Habitat	Creosote Bush Scrub
Where It's Found	Alluvial fans and bajadas in ABDSP and adjacent areas
Normal height/spread	15 ft. X 8 ft.
Flower color & bloom period	Pink and White, February through March
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

This beautiful tree is closely related to Palo Verde and Mesquite but less common and slower growing. The ones planted around the Visitor Center in the 1970s are now reaching mature size. So plant this one with the long view in mind. Try to duplicate alluvial fan conditions with deep sand, some surface rocks and normal water. More water and fertilizer will kill it, not make it grow faster.



Photo by Don Rideout



## ***Opuntia basilaris***

### **Beavertail Cactus**

Family	CACTACEAE (Cactus)
Perennial or annual?	Perennial Sub-shrub
Habitat	Creosote Bush Scrub, Joshua Tree Woodland, Chaparral, Southern Oak Woodland, Coastal Sage Scrub, Pinyon-Juniper Woodland, Valley Grassland
Where It's Found	Rocky/sandy areas over much of California's desert
Normal height/spread	1 ft. X 6 ft.
Flower color & bloom period	Magenta, April through June
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

### **Notes/Discussion**

It never ceases to amaze me how this normally nondescript cactus can put out such amazing flowers in spring. This plant really thrives on neglect. You can either give it our recommended watering regime or just let rain take care of it. Beavertail cactus doesn't seem to care. If it's happy it will slowly spread into a larger patch. Be very careful of the glochids (short spines). Although they don't look dangerous, they get into skin easily and don't want to come out. Like other cacti its roots are widespread and shallow. Plant it where you can appreciate the flowers but you won't be brushing up against it, and give it some room to spread.



Photo by Don Rideout

***Parkinsonia florida***  
**Blue Palo Verde**

Family	FABACEAE (Legume)
Perennial or annual?	Perennial Tree
Habitat	Creosote Bush Scrub
Where It's Found	Over most of the Lower Colorado Desert and adjacent areas
Normal height/spread	15 ft. X 15 ft.
Flower color & bloom period	Yellow, April-May
Evergreen or Deciduous	Typically evergreen but will drop leaves in drought
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

This well-known and popular tree is great for shade, wildlife, rapid growth, and just plain good looks. Although drought tolerant, it will accept extra watering and grow faster. The downside of faster growth is that it can become brittle and somewhat unruly. A good program is to give it more water the first couple of years, then taper off to minimal or no supplemental water, which will ultimately make the tree stronger. Don't be reluctant to prune Palo Verde to get the shape you want. You can make it either single trunk or multi-trunk. Just watch out for the spines. If it's happy it will bloom like crazy in spring, followed by tons of seed pods which are edible but not as good as mesquite which it is closely related to. You may find lots of seedlings coming up after a wet winter, but most of these don't survive. There is a Mexican Palo Verde (*Parkinsonia aculeate*) which is even faster growing but more brittle and unruly. Blue Palo Verde is our native and is the one you should plant (but also see Foothill Palo Verde below). The variety sold as 'Desert Museum' is a good looking and well behaved hybrid that doesn't have spines.



Photo by Don Rideout



***Parkinsonia microphylla***  
**Foothill Palo Verde**

Family	FABACEAE (Legume)
Perennial or annual?	Perennial Tree
Habitat	Creosote Bush Scrub
Where It's Found	Not found in ABDSP but in adjacent parts of Imperial, Riverside and San Bernardino Counties
Normal height/spread	15 ft. X 10 ft.
Flower color & bloom period	Yellow, March-May
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

The California Native Plant Society lists this as a rare species, and it isn't often available at nurseries. We have included it here because it is a really nice tree if you can get it. It has a family resemblance to Blue Palo Verde, but the leaves are darker green and much smaller. It also seems less inclined to drop its leaves and its growth rate might be a little slower. Due to its subtle differences from Blue Palo Verde, it would provide some variety in a garden. It has spines so don't plant it right next to a walkway.



Photo by Don Rideout

***Penstemon* sp.**  
**Beardtongue**

Family	PLANTAGINACEAE
Perennial or annual?	Perennial Herb
Habitat	Desert Transition Chaparral
Where It's Found	Higher elevation areas such as along Montezuma Grade
Normal height/spread	3 ft. X 3 ft.
Flower color & bloom period	Red, Pink or Violet, March-July
Evergreen or Deciduous	Normally evergreen but may drop leaves in drought
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

The *Penstemon* genus has some beautiful flowers for the desert garden. Scarlet Bugler (*Penstemon centranthifolius*) is typically found at higher elevations. From spring to mid-summer it can be seen along the roadside of Montezuma Grade from Culp Valley to Ranchita. The flowers are deep red and popular with hummingbirds. Eaton's *Penstemon* (*P. eatonii*) is very similar but more common to the Joshua Tree and Mojave area. For a different color, try Cleveland's Beardtongue (*Penstemon clevelandii*) which is very common in ABDSP and has fuchsia colored flowers. Showy *Penstemon* (*P. spectabilis*) has blue to lavender flowers. Parry's *Phacelia* is native to Arizona. All are very drought tolerant and can take a lot of heat but do best with afternoon shade.



Photo by Don Rideout



***Peritoma arborea***  
**Bladderpod**

Family	CLEOMACEAE (formerly CAPERACEAE)
Perennial or annual?	Perennial Shrub
Habitat	Coastal Sage Scrub, Creosote Bush Scrub, Joshua Tree Woodland
Where It's Found	Numerous locations in ABDSP
Normal height/spread	6 ft. X 6 ft.
Flower color & bloom period	Yellow, November through June
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

**Notes/Discussion**

This interesting plant has been difficult to categorize. It was previously called *Isomeris arborea* in the Caper family, but then DNA research showed that it should be in its own family and the genus was renamed *Peritoma*. It is found in many desert locations as well as mountain and coastal areas. It has a distinctive smell which some people like and others hate. Its main selling point is that it is in bloom most of the year. It is attractive to many insects, especially harlequin beetles. Give young plants extra shade and water to get them established. After that, it is a tough and low-maintenance plant.



Photo by Don Rideout

## ***Psorothamnus spinosus***

### **Smoketree**

Family	FABACEAE (Legume)
Perennial or annual?	Perennial Tree
Habitat	Creosotebush Scrub
Where It's Found	Washes
Normal height/spread	12 ft. X 12 ft.
Flower color & bloom period	Deep lavender, June-July
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

### **Notes/Discussion**

Another icon of the desert, Smoketree is notoriously difficult to get established but very rewarding if you can do it. The difficulty is with its taproot which wants to grow deep and fast. It appears that any disturbance to the taproot can kill a young plant. Also, smoketree grows in washes with deep sand that stays moist but not saturated at a depth of several feet. Getting this water program right can be difficult. Our suggestion is to irrigate new plants from several feet away by either drip emitter or hose about every two weeks. Make sure you get the water deep into the sand. A few rocks around young plants won't hurt. If you get one established its growth will take off and you can cut back on the water. If it's really happy it will start putting out seedlings. The seeds have to be scuffed up and then saturated in order to germinate. There are several places in Borrego Springs where mature front yard Smoketrees routinely produce seedlings in the road shoulder. Everyone knows what Smoketree looks like, but here's a photo anyway.



Photo by Don Rideout



## ***Rhus ovata***

### **Sugarbush**

Family	ANACARDIACEAE (Sumac)
Perennial or annual?	Perennial Shrub
Habitat	Chaparral
Where It's Found	Higher elevations such as Culp Valley
Normal height/spread	10 ft. X 20 ft.
Flower color & bloom period	Pink and White, April-May
Evergreen or Deciduous	Evergreen
Dormancy	No
Water Requirements	Normal

### **Notes/Discussion**

Sugarbush is not often planted in gardens because its spread is great. However, if you have the space and want to encourage wildlife it would be a great choice. Quail, Thrashers and many other birds love it. Since it is from higher elevations, give it some extra shade and water to get it established in low desert gardens. Also put a cage around it to protect from the bunnies. After a couple of years it will develop a woody trunk which the bunnies won't eat, and the plant will become more heat and drought tolerant.



Photo by Michael J. Plagens via Wikicommons

## ***Salvia apiana***

### **White Sage**

Family	LAMIACEAE (Mint)
Perennial or annual?	Perennial Shrub
Habitat	Desert Transition Chaparral
Where It's Found	Higher elevations such as Culp Valley
Normal height/spread	5 ft. X 8 ft.
Flower color & bloom period	Pale Blue and White, April-July
Evergreen or Deciduous	Evergreen but will drop leaves in drought
Dormancy	No
Water Requirements	Low to Moderate

### **Notes/Discussion**

Everybody knows White Sage. It is a popular garden plant for the coast, mountains and high desert. It may not survive a summer in Borrego Valley unless it has afternoon shade and plenty of water. It puts up a number of very tall flower stalks lined with white flowers that have just a hint of pale blue or lavender. The flowers are prized by hummingbirds and native bees. Other small birds such as Goldfinches will eat the seeds in fall, so if you cut down the old flower stalks after flowering, throw them on the ground so the birds can get the seeds. Like other *Salvias* the fragrance is very strong – some might consider it overwhelming, others love it. As everyone knows, native people use it as an incense in religious ceremonies. There is a naturally occurring variety named *compacta* that is restricted to San Diego and Riverside County mountains. It has a lesser spread, making it very useful for smaller garden spaces. It isn't as available in nurseries as the straight species but it's worth looking for. White sage is tolerant of many soils but prefers sandy/ gravelly soil.



Photo by Don Rideout



***Salvia clevelandii***  
**Cleveland Sage**

Family	LAMIACEAE (Mint)
Perennial or annual?	Perennial Shrub
Habitat	Chaparral
Where It's Found	Higher elevations such as Culp Valley and mountains
Normal height/spread	6 ft. X 8 ft.
Flower color & bloom period	Blue, May-Aug.
Evergreen or Deciduous	Evergreen but will drop leaves in drought
Dormancy	No
Water Requirements	Low to Moderate

**Notes/Discussion**

Although this plant is found in the wild on the seaward side of the mountains, it also works well in high desert or desert transition locations such as Shelter Valley or Ranchita. In Borrego Valley give it afternoon shade and extra water. It is one of the star performers of the *Salvia* genus, beautiful, very hardy, well-mannered and not demanding. The fragrance is great, not as intense as White Sage and sweeter. On summer evenings it can carry quite a distance. The gray-green foliage contrasts nicely with its blue flowers.



Photo by Don Rideout

***Salvia vaseyi***  
**Wand Sage**

Family	LAMIACEAE (Mint)
Perennial or annual?	Perennial Shrub
Habitat	Crosote Bush Scrub
Where It's Found	Desert canyons and valleys such as Coyote Canyon
Normal height/spread	4 ft. X 6 ft.
Flower color & bloom period	White, April-June
Evergreen or Deciduous	Evergreen but will drop leaves in drought
Dormancy	No
Water Requirements	Low

**Notes/Discussion**

This is the true desert sage for our area, but it's hard to find in nurseries. I don't know why more people don't propagate it. It resembles White Sage but has more curly/wavy leaves and tolerates greater heat and dryness. Like White Sage, hummingbirds love it, it has a distinctive fragrance, and the leaves can be used as incense. It's an ideal sage for Borrego gardens, if you can find it.



Photo by Mike Bigelow



## ***Sphaeralcea ambigua***

### **Apricot Mallow**

Family	MALVACEAE (Mallow)
Perennial or annual?	Perennial Shrub
Habitat	Crosote Bush Scrub and Chaparral
Where It's Found	Low and high desert, mountains
Normal height/spread	4 ft. X 4 ft.
Flower color & bloom period	Orange, rarely pink, April-July
Evergreen or Deciduous	Evergreen but will drop leaves in drought
Dormancy	No
Water Requirements	Low

### **Notes/Discussion**

This is another one that everyone knows. It goes by many common names including Desert Mallow, Globe Mallow, and Desert Hollyhock. It blooms prolifically from spring into summer, and the color is terrific especially when mixed with flowers of other colors. It is fairly bullet-proof in the garden, although the leaves sometimes get eaten by leaf-miner insects. But butterflies and hummingbirds love it. Its one other drawback is that it is not very long-lived in the garden. But the solution to that is to simply buy new ones every year so you always have young ones to replace the ones that are on their last legs. Every garden should have at least one.



Photo by Don Rideout



***Vitis girdiana***  
**Desert Wild Grape**

Family	VITACEAE (Grape)
Perennial or annual?	Perennial Vine
Habitat	Springs or seeps
Where It's Found	Desert canyons such as Grapevine Canyon, also mountain chaparral
Normal height/spread	Wide spreading vine, up to 20 ft.
Flower color & bloom period	Inconspicuous yellow or cream, May-June
Evergreen or Deciduous	Winter deciduous
Dormancy	Yes
Water Requirements	Medium to high

**Notes/Discussion**

This is found at most locations where there is surface water such as Grapevine Canyon and upper Coyote Canyon. This should be planted where you would have Fan Palm, Desert Willow, or Pink Fairyduster. It will be leafless and dormant all winter. So why would you want this plant? It is a very valuable plant for wildlife. The grapes are edible but you may not want to eat them yourself. Better to leave them for the birds who will flock to this plant when the grapes are ripening in summer. You may not be here to see them, but they will appreciate it. Make sure it has at least a little afternoon shade in summer and constant moisture year round. It doesn't need a huge amount of water, just enough so the soil never dries out. Big rocks around the root ball will help. Give it a trellis, fence or large shrub to climb up, or plenty of space so it can spread out on the ground.





***Xylorhiza cognata***  
**Mecca Aster**

Family	ASTERACEAE (Sunflower)
Perennial or annual?	Perennial Herb
Habitat	Creosote Bush Scrub
Where It's Found	Sandy desert washes and badlands in Imperial and Riverside Counties
Normal height/spread	2 ft. X 1 ft.
Flower color & bloom period	Purple ray flowers, yellow disk flowers, Jan. – June or longer if summer rain
Evergreen or Deciduous	Summer semi-deciduous
Dormancy	No
Water Requirements	Medium

**Notes/Discussion**

This plant is a cousin to Orcutt's Aster (*Xylorhiza orcuttii*) which is found in the washes and badlands of ABDSP. So why are we talking about Mecca Aster? Because Orcutt's Aster is impossible to find either as container plants or as seeds. Mecca Aster is only available because Living Desert grows it for their own purposes, and they give us a few to sell at our Fall Festival. Over time the Botany Society may learn how to propagate Orcutt's Aster so we can sell it, but for now Mecca Aster is all you can get. They look very similar anyway, and their gardening requirements are virtually identical. Try to replicate conditions in a desert wash. Soil should be very loose sand, water should be deep and about once or twice a month. A little afternoon shade is probably a good idea. Rabbits seem to leave it alone. Its long spring-to-fall blooming period makes it a real winner for the Borrego garden.



Photo by Don Rideout