

“Superbloom”

Joshua Tree National Park and Anza
Borrego State Park
Southern California -
Palm Springs Region
Spring 2019



JOSHUA TREE

California



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Where are
we?

- The eastern half of Joshua Tree NP lies within the Colorado Desert. The western half is in the Mojave Desert, which is where these photos were taken. The west entrance to the park is about 45 miles from Palm Springs.

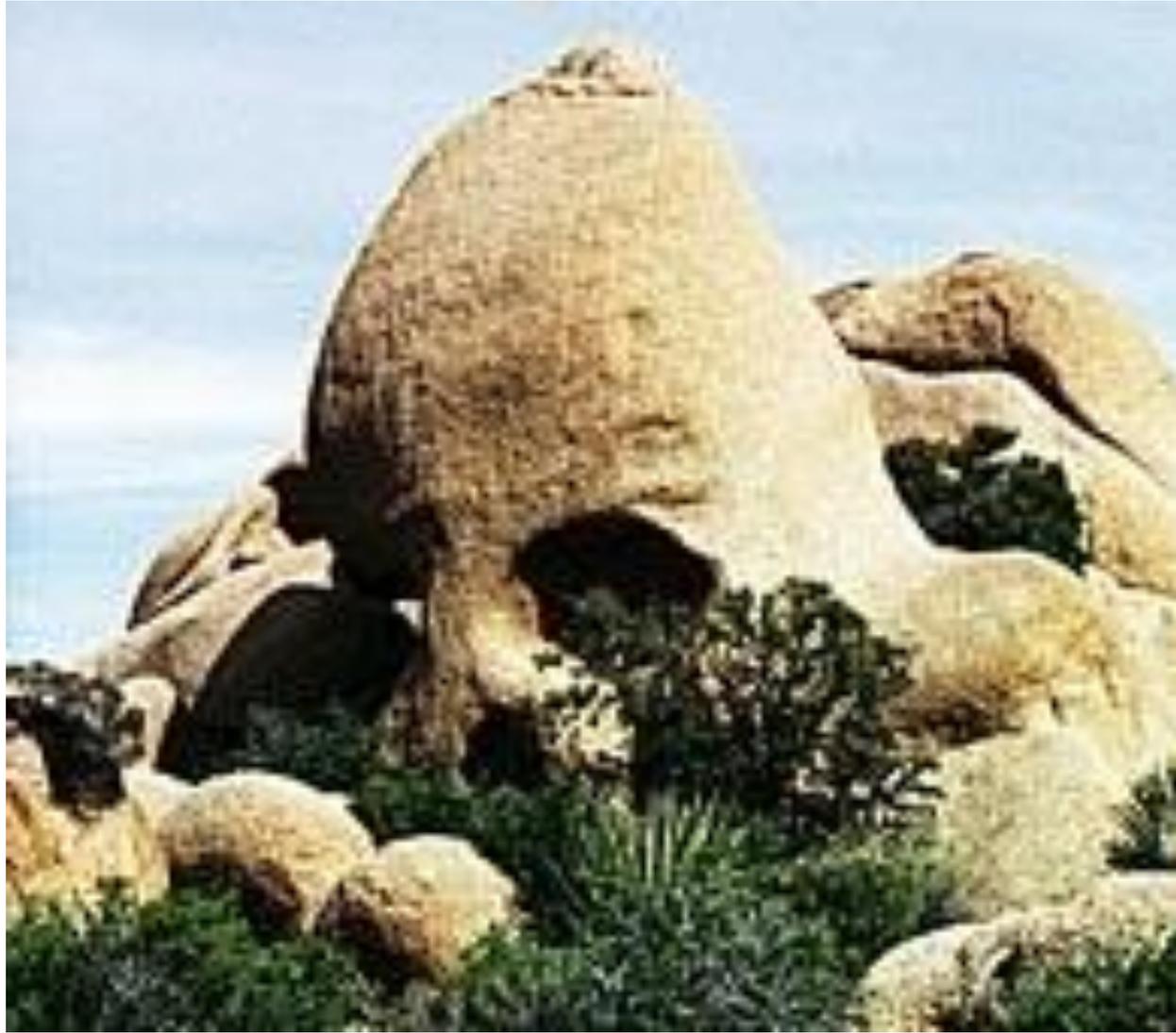
Map of Southern California



What truly tells you that you're in the Mojave is not only the huge variety of cactus but also the wild-armed Joshua Tree. It really isn't a tree at all, but is in fact a species of yucca. They are found in the higher elevations of the park, where rainfall may be six to eight inches a year, vs. three to four inches in lower elevations. It is adapted to both heat and cold. They can grow over 40' tall at a rate of just one inch per year. Clusters of cream-colored flowers appear February through April.

The majestic Joshua Tree





The park has jumble of topography and geology and some really surreal rock formations. This is “ghost rock”. The park comprises 800,000 acres and hosts over a million visitors a year. The park was overrun during COVID.

Yes Alice, it does snow in the desert!



NPS Photo

JTNP'S PINTO BASIN

Where the Mojave and Sonora deserts converge.

Features creosote and Cholla cactus, but no Joshua trees.

Named for the ancient Pinto culture, the earliest known habitants who left stone tools in the area.

Once characterized by lush lakes, swamps and grasslands.

Sidewinders, jackrabbits and fringe-toed lizards are the only inhabitants.

Pinto Basin Road crosses JTNP from north to south , a 36 mile drive on a paved road.

Average summer temp is 104 and winter is mid-60's.



Pinto Basin



What is a “Superbloom”

The “wet” season, which stretches from November to March, can usher in the steady yet not-too-heavy rainfall that encourages flowers to bloom. It doesn’t happen every year though – 2019 was a “once in a lifetime” show. However, significant rains in December 2025 should result in a Superbloom in the Spring of 2026. The Coachella Valley had high levels of rainfall in February of 2019, which encouraged millions of dormant seeds to germinate. The desert in the Joshua Tree area normally looks like this...brittlebush on the hillsides and not much color.



Germination

- Many seeds have developed a dormancy (or sleep) period. Seed dormancy is a condition that prevents germination even under optimal environmental conditions.
- Why would it benefit seeds to not all germinate when conditions are right? In nature, staggering germination keeps some seedlings safe from possible bursts of bad weather or herbivores that might eat them. Example: Seeds of plants that grow best in the spring have self-selected to germinate only after cold winter temperatures have passed.
- For seeds to come out of dormancy, we have to break their physical or chemical dormancy factors. Seeds might have a hard or thick seed coat (physical dormancy). This can be broken by soaking or scarifying (scratching the surface) of the seed. Other seeds have internal chemical or metabolic conditions that prevent germination (chemical dormancy).
- Later we will see an example of scarification.



In the Spring of 2019, it looked like this!





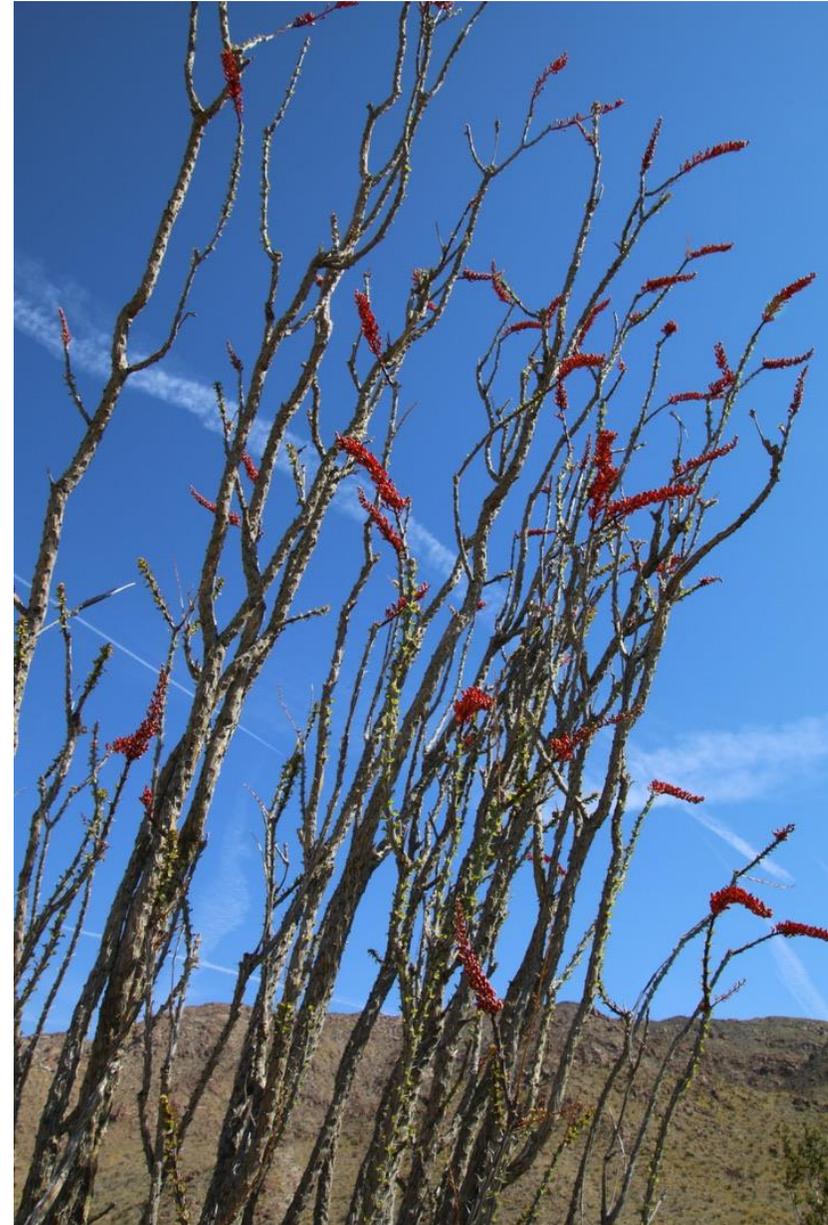
The variety of plants that bloomed was simply amazing –
this is Desert Mallow



Sand Blazing Star –
in Superbloom form with an incredible number of blooms
on each plant

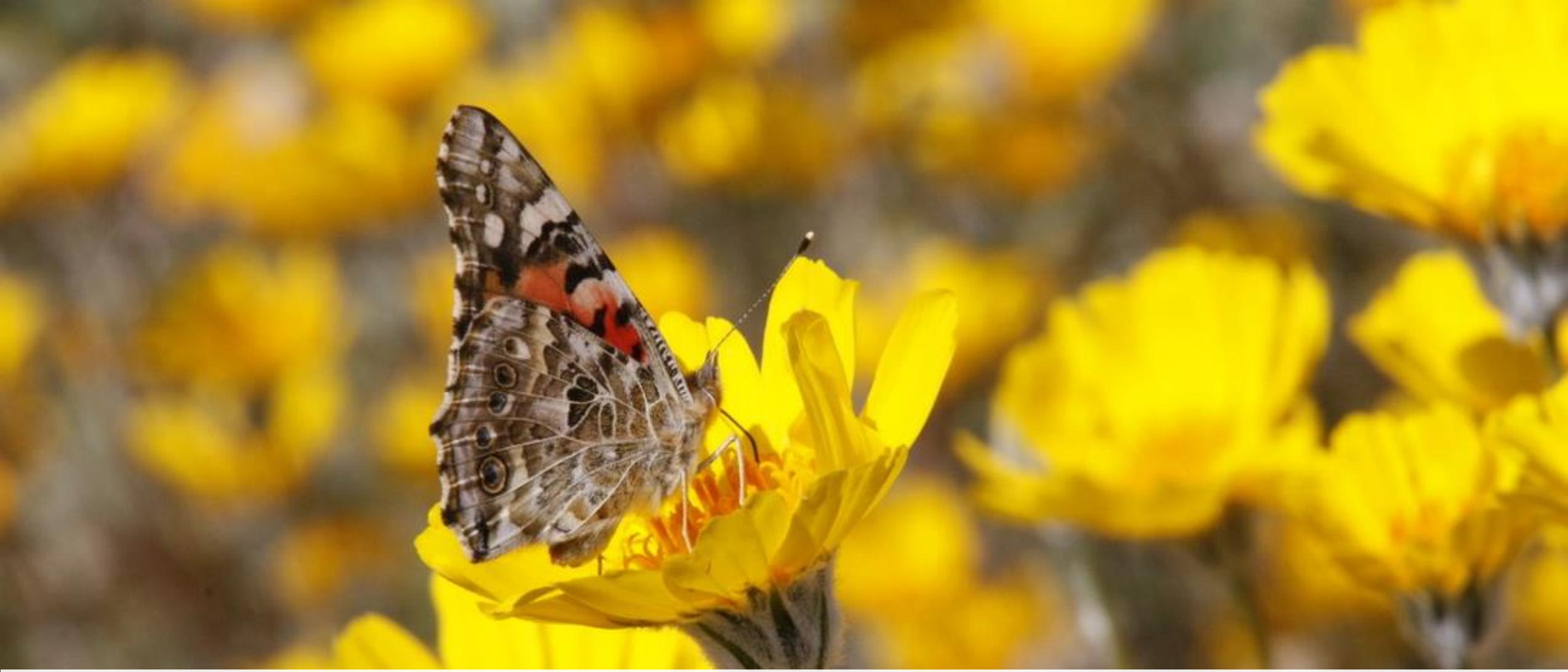


Ocotillo, which looks dead most of the year! Foliage only emerges after a heavy rain and then the flowers come out at the tips of the branches



A close-up of
the Ocotillo
bloom





Desert Sunflowers attract the Painted Lady Butterfly, which were seen in flocks throughout the months of March and April



Gravel Ghost Flower

A close-up photograph of a cluster of purple monkey flowers (Mimulus) growing in a sandy wash. The flowers are vibrant purple with yellow centers and are surrounded by green foliage. The ground is composed of light-colored sand and small pebbles. A black circular callout box with a white border is positioned in the upper left corner, containing text.

Purple Monkey
Flower
(Mimulus),
which loves a
sandy wash



Desert Chicory



Canterbury Bells, filling a sandy wash





And an up-
close shot...



Desert Gold Poppies line a walking path





The dark
plant you
see is Chia

Chia up
close





Wild Heliotrope – these flowers are less than a half-inch in diameter but the clusters are very showy.

Desert Lupine







Bladderpod



So many species were in bloom – even though I had three books in hand, I couldn't identify everything I saw.



Each flower is spectacular on it's own, but then you see them growing amongst each other and the full impact of the term "superbloom" begins to emerge...





I admit to not taking
this photo...

Now let's
change years
and visit
another
area...

- This slide show was produced by my husband, Danny in during the 2017 superbloom. He is an avid jeeper and photographer. We hope you will enjoy this 7-minute interlude featuring photos from an area called Henderson Canyon, near JTNP and Borrego Springs.



<https://vimeo.com/209674199>

The town of Borrego Springs is inhabited by pre-historic monsters...a series of 130 metal sculptures by artist Ricardo Breceda



South of Joshua Tree lies the unpretentious town of [Borrego Springs](#), population 3,429. It is smack in the middle of [Anza-Borrego Desert State Park](#).

It's the only California town that is completely surrounded by a state park.

It's also an official [International Dark Sky Community](#)—the first in California—dedicated to protecting the night sky from light pollution. Backyard stargazing parties happen almost every night.

Then there's the [ruby red grapefruit season](#), which begins in late December and ends when all the grapefruit are picked. Some corner fruit stands are run on the honor system - pick up a bag and place your money in the box.

This area is also home to [Galleta Meadows](#), which is home to some fantastic, very large art. The sculptures are the work of [Ricardo Breceda](#), and were paid for by the heir to the Avery Label company. Dennis Avery transformed a desert landscape into an open-air gallery where art and nature merge, without the constraints of walls or admission fees.

[Galleta Meadows video](#)



Elephants, and the largest sculpture, the serpent







Brown-eyed Primrose with Monkey Flower and Chia











Do you
know what
this is?

Mistletoe is a parasite that takes root on Smoke Trees. The mistletoe berries are eaten by birds who then deposit the seed on the trees, where they take hold and eventually kill the tree. The birds are smart though – they are picky about which trees they drop seed on, as they know it will eventually kill the host.





White Tidy
Tips

Paper Bag Bush



A wide-angle photograph of a desert landscape during a superbloom. The foreground and middle ground are densely packed with a variety of wildflowers, including bright yellow poppies, purple wildflowers, and small white flowers. The background shows a rocky, hilly desert terrain with sparse green and brown vegetation under a clear sky.

A last shot of the
Superbloom
before leaving
Joshua Tree...
a once in a
lifetime show!

Swainson's
hawk





Millions of caterpillars lead to the demise of the wildflowers, in addition to the onset of higher temps in the desert.



Some of which
become the
White Lined
Sphinx Moth,
or Hummingbird
moth

Anza-
Borrego
State Park –
A vast
no-man's
land



- The largest state park in CA – 650,000 acres
- Home to desert Bighorn sheep, mountain lions, coyotes, Roadrunners, golden eagles and hawks, iguanas, and the occasional rattlesnake.
- Average precipitation in a year is less than 6”.
- Also home to the California Fan palm
- Most fossils found in the park date from 6 million to under a half million years in age. (Pliocene/Pleistocene epochs).



With cactus farms and citrus orchards



Of course
there is a
huge variety
of cactus...

Barrel
Cactus
in bloom



“Century Plant” is a cactus that sends up an asparagus-like stalk, with small clusters of blooms at the top. The stalk eventually falls over and takes the root ball of the plant with it. Most often there are pups growing at the base of the mother plant to take it’s place.





Sand Verbena up close...





And the distant view...





Desert
Dandelion, as
far as the eye
could see in
Anza-Borrego
State Park

Desert Lily in
Anza
Borrego
State Park



But not all
plants that
grow in the
desert are
desert-like...



Annuals thrived in my garden in Indio, CA., which is around 100' below sea level. These are pink cushion mums, Mystic Spires Salvia and Blanket flower. The photos were taken in March, the peak time for annuals.



Pink
Whispering
Butterflies
complement
the Brittlebush
below and
bouganvillea
behind



Blanket
flower is
perennial



In other years, I used Marguerite Daisy and Mystic Spires Salvia.

Hummingbirds and Hawk Moths love the salvia. It will grow as an annual here in Colorado.

The yellow and silver groundcover is trailing Silver Leaf Gazania.



Experimenting with lighting at night



